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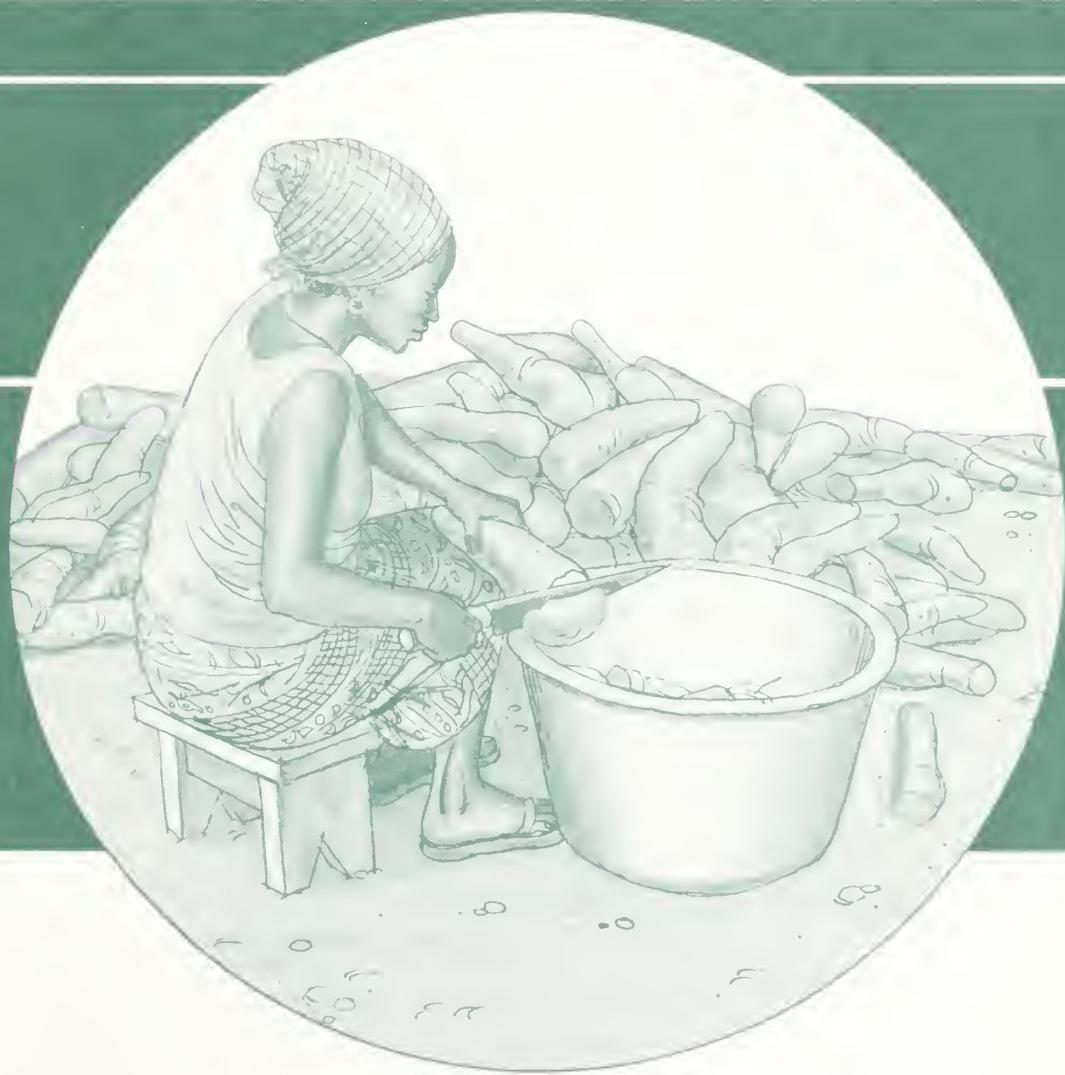
Sub-Saharan Africa

Outlook and Situation Report

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Food availability remains a major concern



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Summary

The 1983 droughts through much of Sub-Saharan Africa reduced agricultural output, aggravating existing food production problems in many countries and triggering food emergencies. Unlike previous droughts, which were more localized, last year's dry conditions affected most subregions—the Sahel, West Africa, East, and Southern Africa. The index of food production for the region declined to 118 (1969-71=100), and per capita production dropped to 82.

In the drought-prone Sahel, some countries received less than half their normal rainfall, which means significant increases in food aid will be needed in 1984. Even some higher rainfall areas, such as the Guinea Coast in West Africa, were affected. Food crops were lower in West Africa, and tree crops—the major foreign exchange earners—were also severely damaged. Within East Africa, the weather varied, but countries in the Horn suffered from drought.

Production fell especially short in Southern Africa, where output of corn, the major grain crop, ebbed nearly 40 percent to only 8 million tons. South Africa—the largest corn producer and usually a major exporter—had its worst harvest in over 20 years and imported an unprecedented 2.4 million tons in 1983/84.

The continuing economic crisis in the region was worsened by the drought. Rising debt service and dwindling foreign exchange reserves have eroded the area's import capacity. Many countries have begun stabilization programs often leading to debt rescheduling by creditors. These programs commonly include devaluing the currency, reducing government spending, and restricting imports. Besides these measures, some countries have begun agricultural policy reforms, which increase producer prices, cut consumer subsidies, and encourage more private involvement.

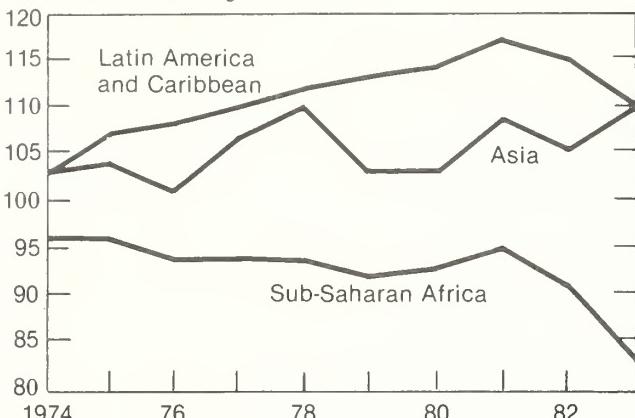
U.S. agricultural exports to Sub-Saharan Africa fell 6 percent in 1983 to \$949 million. Commercial sales accounted for \$715 million, with the remainder concessional. Nigeria continued as the largest market even though sales dropped 32 percent to \$334 million. Exports to South Africa, the second largest market, nearly doubled to \$248 million. U.S. agricultural imports from the region declined 9 percent to \$1,022 million, leaving a U.S. agricultural trade deficit of \$73 million. Coffee and cocoa were the leading imports, together accounting for two-thirds of the total.

For 1984, the outlook is mixed. Stronger commodity markets should improve export earnings for many countries. Rains have been heavy in West Africa and have started well in the Sahel, signaling an end to the drought. In those areas, higher production is expected. In Southern Africa, however, drought continued into 1984. In East Africa, Kenya is currently having severe drought, which portends crop shortfalls.

U.S. agricultural exports to the region should increase substantially in 1984, and are likely to equal or surpass 1981's record \$1.25 billion. Last year's drought has increased import requirements, especially in South Africa. Grains will continue to dominate these exports, with big increases in corn shipments. Rice sales will again stagnate, as African countries turn to cheaper sources.

Indices of Per Capita Food Production

% of 1969-71 average



Asia excludes Japan and China

WEST AFRICA

The Sahel¹

Drought Reduces Output

Late and insufficient rainfall in most of the Sahel during 1983 reduced yields, degraded pasture, and lowered agricultural output. Total cereal production in these eight West African countries, which have a combined population of 33.3 million, fell 10 percent to 4.9 million tons. However, there were significant variations in output within the region.

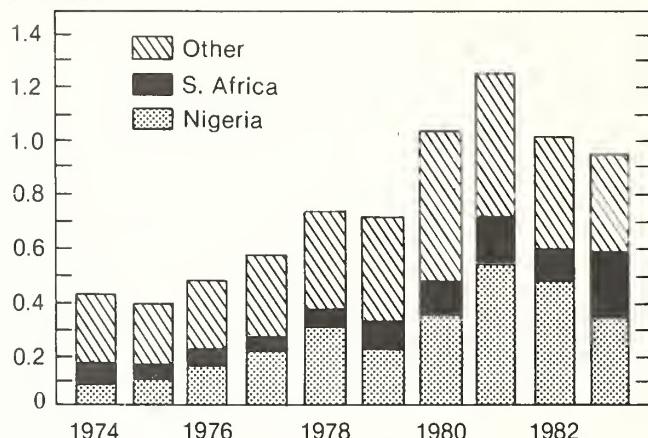
Drought in northern Senegal was the worst since the devastating Sahel drought in 1972-73. Senegal's cereal production declined by one-third to 537,000 tons. Production of peanuts, which normally account for 25 percent of Senegal's foreign exchange earnings, declined by almost half to 550,000 tons. Cereal production in Mauritania fell to 12,000 tons from 44,000 tons in 1982, because of insufficient rain and the absence of flooding in the Senegal River basin. The basin is the main agricultural area, and flood recessional farming is practiced there. Lack of pasturage caused heavy loss of Mauritania's livestock.

Cereal production in Gambia declined 50 percent to 48,000 tons. Output of peanuts, which account for 90 percent of export earnings in a normal year, also dropped by nearly half, to 90,000 tons. Upper Volta's cereal production, affected in the north by insufficient rainfall, was damaged throughout the country by the early end of the rainy season. Output fell 30 percent, to 1 million tons. Cape Verde's chronic drought continued in 1983, reducing area planted and yields. Harvests of corn and beans declined slightly to 3,000 and 1,250 tons, respectively.

Only marginal agricultural areas of Mali were affected by drought, so national cereal production increased slightly to 1.1 million tons. Adequate rainfall in the

U.S. Agricultural Exports to Sub-Saharan Africa

\$ billion



major producing areas of Niger helped raise cereal output slightly, to 1.7 million tons. Normal rainfall in Chad's main agricultural region (the south), a lull in the civil war, and increased cotton producer prices boosted cereal and cotton output in 1983. However, Chad's production still has not recovered to the levels of the mid-1970's.

Drought Threatens Economic Gains

Agriculture is the leading sector in Sahelian economies, employing 70 to 90 percent of the population. Its contribution to gross domestic product (GDP) ranges from 22 percent in Senegal to 42 percent in Gambia and Mali. Agricultural exports account for 50 to 90 percent of Sahelian foreign exchange earnings, except in Cape Verde. Moreover, economic activity in other sectors (manufacturing, processing) is dependent on the agricultural sector. Rainfed agriculture covers 96 percent of the cultivated area in this region, and output is highly vulnerable to weather conditions. The Sahelian economies are thus subject to significant annual variation in their performance.

The drought in 1983 followed 2 years of average to above-average harvests, which contributed to the economic gains made by most of these countries during 1982 and 1983. Real GDP rose 9.8 percent in the Gambia in 1982/83, 1.6 percent in Upper Volta in 1982, and 2 percent in Mali in 1983. But Niger's GDP declined 1 percent in 1983 because of the continued depression of the world market for uranium, its principal export. In many Sahel countries, trade surpluses were generated or trade deficits reduced by the increased volume of agricultural exports, some recovery in world commodity prices, and reduced imports because of austerity programs. Mauritania achieved a trade surplus last year as fish exports rose and total imports declined. Increases in cotton exports from Chad and peanut exports from Senegal and Gambia also helped boost their respective foreign exchange earnings.

Long-Term Trends Are Troubling

The Sahel faces many serious and complex problems, mostly stemming from unfavorable long-term trends in agriculture. The region's cereals output has remained steady over the past decade, with a 1983 production

¹The Sahel region includes Cape Verde, Chad, Gambia, Mali, Mauritania, Niger, Senegal, and Upper Volta.

index of 102 (1969-71 = 100). However, per capita cereals production has declined steadily. The 1983 index of per capita production stood at 67, the lowest since the Sahel drought in 1973. The index for 1982, a year of average harvest, was only 84. The region's production of rice in particular has stagnated since 1970, staying at about 275,000 tons annually. Meanwhile, the index of per capita rice production has declined steadily, hitting 47 in 1983.

This long slide in per capita cereals production has been accompanied by urbanization, which has increased consumer demand for rice and wheat. Together, the two factors have pushed up the region's dependence on cereals imports. Imports as a percentage of annual consumption rose from an average of 12 percent during 1970-72 to 20 percent in 1983. Mali, for instance, imported 15 percent of its cereal needs in 1983, compared with an average of 4 percent in 1970-72. Senegal now imports 41 percent of its cereal requirements, compared with 31 in 1970-72. Increased dependence on imports strains the region's financial resources. Gambian food imports in 1982/83, for example, equaled one-third of all export earnings.

The Sahel's 1983 cereals production of 4.9 million tons is far below current consumption requirements of 6.4 million. The gap represents a 16-percent increase over 1983 cereals imports. The poor harvests that raised food import requirements for 1983/84 have also reduced the Sahel's capacity to pay for them. Some recovery in world commodity prices should help offset the decline in export volume for peanuts, livestock, cotton, and other commodities. However, an estimated 42 percent of the region's 1983/84 food import requirements are being met by aid. Food aid accounted for 85 percent of 1983 cereal imports in Upper Volta, 80 in Cape Verde, 75 in Chad, 55 in Mauritania, 50 in Mali, 35 in Niger, 22 in Senegal, and 18 in Gambia.

Structural Adjustment Programs Continue

Many Sahelian countries have debt burdens that limit Government expenditures and investment. The debts are the result of stagnant agricultural productivity, rising food imports, low world prices for agricultural exports, and in many countries, expansive Government fiscal and development policies. Accumulated arrears on foreign debt are becoming substantial as payments fall due on past loans. Debt servicing in Cape Verde has quadrupled from the 1980-83 average, because of major infrastructural investments undertaken since 1979. Niger's foreign debt doubled between 1980 and 1982, as the nation borrowed to offset declining uranium earnings. Niger's debt now represents about 40 percent of gross national product (GNP). Denomination of much of the Sahel's debt in U.S. dollars has pushed real debt up further. In most of the countries, insupportable levels of debt servicing have necessitated debt rescheduling and standby credit from the International Monetary Fund (IMF).

All of the Sahel countries have undertaken significant structural adjustment to correct long-term economic imbalances; the adjustments include producer and consumer price reform, institutional reform, and austerity budgeting. The World Bank, the IMF, and increasingly,

bilateral donors have played important roles in supporting these reforms.

In almost all the countries, prices received by farmers have been significantly increased and are announced prior to planting time. In Mali, for example, producer prices were increased and the cereals marketing system was reorganized to reduce the role of the state and increase that of licensed private traders. This program has been given support by several donors. Niger has substantially increased producer prices for food crops and disbanded unprofitable parastatals as part of an IMF structural adjustment program.

Retail prices have also increased throughout the region. Gambia eliminated its consumer rice subsidy, Mauritania increased its retail rice price by 43 percent, and Cape Verde raised its retail corn price close to import costs. In addition, producer input subsidies are being reduced.

[*Mary Burfisher*]

Cameroon

Economic Growth Slows

The world recession and the drought-induced drop in agricultural output slowed Cameroon's economic growth in 1983. Real GDP grew by 6 percent to an estimated \$8 billion. Growth had averaged 7 percent annually over the last 5 years. Industrial activity—such as aluminum production and sugar refining—declined as world demand fell. The devaluation of the French franc, to which Cameroon's currency is pegged, contributed to an inflation rate of 20 percent, up from 13.6 percent in the 12 months through October 1983. Foreign debt rose sharply in 1983 to \$3.2 billion, but debt servicing is still manageable, at 14-20 percent of export earnings, depending on estimates of oil revenues.

Food prices, especially for cooking oils, rose sharply as drought reduced production, and both import prices and import duties increased. Agricultural export revenues declined slightly because exports of wood, bananas, and palm oil fell. Reliable statistics on petroleum production and exports are not available. However, oil export revenues, which now account for almost two-thirds of all export earnings, are estimated to have increased in 1983, as the opening of two new fields boosted output by 12 percent.

Last year, the first of President Paul Biya's administration, significant new economic policies were implemented. Biya's "new deal" policies should contribute to the economic recovery predicted by 1985. This program and other recent policy initiatives include: restructuring and privatizing parastatals, giving economic support to small businesses by requiring banks to provide them a quota of credit, increasing import duties, rigorously enforcing customs laws, and encouraging foreign investment.

There has been some slowing in the expansionary monetary policy of recent years, and signs are that Biya plans to confront the liquidity problems generated by overly easy credit terms. In addition, Biya has announced a policy of "transparent accounting" whereby national petroleum revenues are to be made public, and \$300 million from the existing oil revenue account is to be inject-

ed into the economy. These economic initiatives and several cabinet shuffles may have been factors in coup attempts in 1983 and 1984, as the country adjusted to its first new president since its independence in 1960.

Cameroon's current economic problems are little more than ripples on the surface of this robust and dynamic economy. For over two decades, Cameroon has maintained strong economic growth. Agriculture, which employs 70 percent of the population and accounted for 27 percent of GDP in 1982/83, is diversified and meets about 80 percent of domestic food requirements.

Since 1977/78, production and exports of oil have helped to offset declining world prices for Cameroon's agricultural exports. Oil continues to provide ample money for the country's ambitious development plans. The Government follows conservative fiscal and development policies. These have helped to prevent oil revenues from becoming economically and socially destabilizing. Instead, oil revenues have been used to support broad-based development of other sectors, primarily agriculture.

Drought's Effect on Output Mixed

The country's agricultural output was not seriously hurt by drought, but there were significant regional and crop exceptions. Northern Cameroon continued to suffer from a prolonged regional drought. Production of millet/sorghum and corn, which are produced mainly in the subarid north, declined by 15 and 11 percent, to 361,000 and 400,000 tons, respectively. Rice, most of which is produced on irrigated, Government-sponsored projects, increased to 71,000 tons paddy as area expanded. Production of starchy tubers (cassava, yams, cocoyams), a major component of the Cameroonian diet, decreased slightly.

Drought and related brush fires caused considerable damage to coffee trees, lowering production nearly 50 percent, to 68,000 tons (26 percent Arabica, 74 percent robusta). However, stock increases following the record 1982 harvest should allow maintenance of 1983/84 coffee exports at about the 1982/83 level of 97,500 tons, while higher world prices should boost earnings. Coffee accounts for about 10 percent of export earnings.

For the cocoa crop, drought exacerbated longer range factors, such as disease and aging plantations. Cocoa production fell to 98,000 tons in 1983, almost 8 percent lower than in 1982. Drawdown of stocks should maintain 1983/84 exports near the previous year's 105,000 tons. The Government is working to revitalize cocoa production, which accounts for about 15 percent of export earnings. The outlook for the 1984 agricultural season is excellent; timely and abundant rainfall began in February. Planting is underway in the agriculturally rich northwest region.

While reliable data on livestock and poultry production are not available, meat output is becoming an important high-growth sector as consumer demand for meat accelerates. The development plan for 1981-86 allocates \$329 million to construction of ranches, feedlots, and slaughterhouses. Poultry farming is being promoted to help stem imports. Imports tripled in 1982/83 to 854 tons, and could quadruple in 1983/84, based on first-

quarter imports of 909 tons. Demand for feed corn and soymeal imports, nil in 1980, is also increasing rapidly.

Policy Supports Agriculture

Ninety percent of Cameroon's agricultural output is from small farms that use traditional methods of cultivation, and two-thirds of all farm area is devoted to food crops. In the late 1970's, only about 10 percent of agricultural investment was directed at the small-farm sector. Export crops, particularly cocoa and coffee, received the lion's share of assistance, in the form of guaranteed producer prices and subsidized inputs.

Since the early 1980's, the Government has become more concerned with increasing food self-sufficiency and raising rural incomes to prevent urbanization. Some agencies created to support export crop production were expanded to support food production as well. There are early indications that the development plan scheduled to begin in 1986 will give priority to increasing food output. In 1983/84, producer prices for export crops and rice continued to rise. To increase real rural incomes, producer prices have been increased since the late 1970's, despite falling world prices and at a faster pace than the consumer price index.

U.S.-Cameroon Trade Declines

In 1983, total U.S. imports from Cameroon declined 35 percent to \$515 million, as Cameroon sold more oil to other markets. Total U.S. exports to the nation rose 9 percent to \$93.4 million, because of increased petroleum equipment sales. U.S. agricultural imports from Cameroon declined about 25 percent to \$28.3 million, mainly because coffee imports fell by one-third to \$20.5 million. U.S. tobacco imports from Cameroon increased 13 percent to \$6.1 million. U.S. agricultural exports—mainly tobacco, inedible tallow, feed grain products, and dry milk—declined slightly to \$6.5 million. Cameroon's agricultural imports, which account for about 5 percent of its total imports, consist mainly of wheat, rice, and dairy products. [Mary Burfisher]

Ghana

New Policies Strengthen Economy

During 1979-82, Ghana's GDP decreased at an average annual rate of 6 percent. A symptom of Ghana's long-term economic decline has been a shift towards subsistence production, away from the monetary economy. The ratio of imports and exports to GDP is now less than 4 percent, compared with 17 percent in 1975. Recovery was expected in 1983, but it did not materialize because drought and bush fires lowered agricultural production and exports. These events forced the Government of Ghana to make harsh economic adjustments that had long been avoided by the policymakers of the current and former governments.

In order to qualify for IMF credits, the Government made major exchange rate adjustments in April 1983, including a system of import surcharges and export bonuses. The system was scrapped 6 months later in favor of a unified exchange rate which went from 2.75 cedis to 30 per dollar. Prices were allowed to rise rapid-

ly, and the gap between official and unofficial prices narrowed significantly. The producer price of cocoa was increased 67 percent to 20,000 cedis per ton. However, taking into account the change in the official exchange rate, the price fell from \$4,364 per ton for the 1982/83 crop to \$667 for the 1983/84.

While the devaluation has led to hardship for many Ghanaians, the adjustment was essential for long-term economic recovery. During 1982/83, the Cocoa Marketing Board (CMB) was losing money for every ton of cocoa exported. The price to farmers was more than double the world price. Wage adjustments were also made, but at a slower pace than price changes. The increase in the daily minimum wage from 12 to 25 cedis did not compensate for the change in the exchange rate.

During 1983, Ghana was able to secure financial help from a number of donors. The Government was praised for its efforts to comply with the stringent conditions for IMF loans of \$380 million. These credits, along with World Bank and international donor support announced at a November 1983 donors conference, have made more than \$600 million in overseas resources available to Ghana.

Drought Causes Severe Food Shortages

Drought, compounded by other economic problems, caused a sharp decline in production of food and cash crops in 1983. Last year's index of per capita food production fell to 56 (1969-71=100) one of the lowest in Africa.¹ The grain harvest was down 12 percent, following a 23-percent drop in 1982. More importantly, root crop production was also down more than 10 percent. Root crops, especially cassava, are considered hunger crops and are used to supplement grains in times of shortages. However, in 1983, both cassava and plantains, which remain in the ground during the dry season, were damaged by bush fires. In some areas stored grain was also destroyed. This left little reserve to supplement the poor harvest of 1983.

An even more disturbing trend has been the decline in food imports. Grain imports fell from 296,000 tons in 1978 to 204,000 in 1983. Thus, domestic availability dropped from 834,000 tons in 1978 to 665,000 last year, or from 76 kilograms per capita to 52. Output of other crops did not increase sufficiently to make up this deficit. Therefore, at the time of the 1983 drought, Ghana was already facing a critical food shortage. FAO estimated that Ghana would need 400,000 tons of grain imports in 1983/84. By May 1984, 350,000 tons had been allocated or shipped, including 145,000 of food aid. The United States has supplied food worth \$17 million under P.L. 480 Title II.

Recovery Expected In Cocoa Earnings

In 1983, foreign exchange revenue from cocoa showed little improvement over the \$390 million earned the previ-

ous year. A 24-percent increase in the world price, to 92 cents per pound, was more than offset by a 31-percent decline in Ghana's production. First estimates for the 1983/84 crop were very pessimistic because of fire and drought damage to the trees and competition from food crops. However, recent reports indicate that main crop purchases by the CMB through April came to 160,000 tons. An additional mid-crop harvest in July and August may bring total purchases to 170,000 tons—close to last year's 177,000.

Beginning with the 1984 mid-crop, producer prices for cocoa have been increased by 50 percent to 30,000 cedis per ton. With world prices averaging more than 20 cents a pound above last year, Ghana's foreign exchange position should improve in 1984. One major unknown, though, is the transportation system. Shortages of spare parts and tires for trucks, deterioration of the road network, and gasoline shortages may slow the movement of cocoa to ports.

Food Outlook Improves

With 1984 grain imports more than double last year's level, food supplies should be adequate until the harvest begins in August. Also, as of April, prices of domestically produced foods were generally below a year earlier. One negative development, however, is that little food is moving from rural to urban areas—where a day's food supply can cost up to a month's wages. Urban areas depend on imported food to supplement local supplies.

An early start of the rainy season enabled farmers to plant corn in March, improving prospects for the harvest. The rains have continued well through April and May. More local food should be available in markets by July. [Margaret Missiaen]

Ivory Coast

Economy Declines for Second Year

The Ivory Coast, which experienced very strong economic growth during the 1970's, has had an 8-percent decline in real GDP since 1980. The sharpest drop—4.4 percent—came in 1983. Reduced agricultural output has been the main factor in the 3-year decline. The contribution of agriculture, livestock, forestry, and fishing has remained at about 25 percent of GDP, even though the petroleum sector has increased its share. About 60 percent of the Ivory Coast's foreign exchange earnings come from agricultural exports.

Increasing domestic petroleum production prevented even sharper declines in GDP. While still an importer, the Ivory Coast has reduced the net cost of crude oil imports from \$45 million in 1980 to about \$27 million in 1983, in spite of some technical difficulties. These problems have been overcome and oil production is now about 30,000 barrels per day (bpd). A GDP increase of 1 to 2 percent is projected for 1984.

Deteriorating terms of trade and escalating debt service caused the debt-service ratio to jump to 40 percent at the end of 1983. For the first time, the Ivory Coast requested that its \$6.5 billion debt be rescheduled. An agreement with the Club of Paris, involving \$280 million,

¹The index tends to underestimate food availability since it includes cocoa, a cash crop in Ghana that is mainly exported. Cocoa production has dropped sharply since the base period—making food production appear to have dropped more than it actually has.

was announced in May. This will provide temporary relief for the country's financial crisis, but further rescheduling is likely to be required next year. A stand-by loan from the IMF and a structural adjustment loan from the World Bank are expected to provide \$225 million in support this summer.

Drought Slows Agricultural Growth

The Ivory Coast is considered one of the agricultural successes in Sub-Saharan Africa. The per capita food production index in 1983 stood at 117 (1969-71 = 100)—one of the highest in Africa. On the other hand, the index of per capita agricultural production declined to 102 in 1983, from 119 in 1980, indicating a decline in cash crops. Some caution must be used in interpreting these indexes, since cocoa is considered a food and coffee is not. In 1980, coffee and cocoa alone contributed 40 percent of the value of production as calculated in the ERS *Indices of Agricultural Production*. Their share dropped to 33 percent by 1983. In early 1983, tree crops were particularly hard hit by the bush fires.

The Ivory Coast is now the world's largest producer of cocoa beans. Output peaked in 1981 at 456,000 tons, nearly double the production of 5 years earlier. Expectations were that crops of 450,000-500,000 tons would be harvested during the 1980's as hybrid plantings reached full production. However, drought during the last 2 years reduced pod set and caused early ripening, cutting size and quality of the beans. Production dropped to 355,000 tons in 1982/83, but recovered somewhat to 395,000 tons in 1983/84.

The size of the current crop is still uncertain, but official estimates are for only 350,000 tons. Traders feel that the Government is underestimating the harvest to bolster prices on the world market. During the first 5 months of 1984, prices fluctuated widely, but they have averaged more than 20 cents above last year's 92 cents per pound. The Ivory Coast has not been able to take full advantage of these higher prices, though, because much of the crop was sold ahead and because the beans were of poor quality. As a result, local processing will increase this year, and lower quality beans will be exported as cocoa products.

Ivorian coffee production is facing many of the same problems as cocoa. An off-year in the coffee cycle combined with the drought to reduce 1983/84 output to 180,000 tons, down 27 percent from the previous year and only 50 percent of the record 1980/81 harvest. The reduced harvest is not all bad news for the Ivory Coast, however, since there are large carryover stocks of 160,000 tons, accumulated during years when production exceeded the International Coffee Organization's (ICO) quota, currently 242,000 tons.

Food crops were not as adversely affected by the drought as cash crops. While production of rice, sorghum, and millet was down in 1983, output of corn and most root crops was up. The continuing decline in the rice crop—from over 500,000 tons in the late 1970's to 450,000 currently—is more a function of Government policies than of weather. Corn production increased because it is the crop normally planted after burning the fields; the 1983 fires caused corn area to increase significantly. However, the lack of storage and marketing facilities

prevented the country from taking full advantage of this sudden abundance. Also, consumption patterns have been slow to adjust.

Trade Balance Continues Positive

In local currency terms, total 1983 exports increased 9 percent, while imports fell by 5 percent, thereby significantly improving the trade balance. However, in dollars, the overall balance-of-payments deficit continued to grow, because of the 16-percent appreciation of the dollar against the French franc, to which the CFA is pegged. The strength of the dollar—which has seen an 80-percent appreciation against the franc since 1980—has had repercussions for both the Ivory Coast and the United States. It has greatly increased the cost of debt service for the Ivory Coast, since much of the debt is denominated in dollars. Also, imports of goods valued in dollars have become much more expensive. The most important item in this category has been petroleum.

In dollars, total exports declined from \$2.4 billion in 1982 to \$2.3 billion in 1983. Coffee and cocoa showed different trends, with coffee shipments up slightly to \$500 million and cocoa down more than 15 percent to \$600 million. Also in dollar terms, imports dropped sharply—from \$1.83 billion in 1982 to \$1.52 billion in 1983. The appreciation of the dollar coincided with a decline in U.S. agricultural exports to the Ivory Coast from \$28 million in 1980 to \$5 million in 1983.

The country's most important agricultural imports are grains, mostly wheat and rice, which make up about 7 percent of the value of total imports. Food imports average between 15 and 20 percent of the total. Wheat imports have slipped slightly, going from 300,000 tons in 1980 to about 250,000 in 1983, but rice imports have soared from 242,000 tons to 434,000 during the same period. In 1983, Pakistan supplied about three-fourths of the rice, with Thailand, Vietnam, and China supplying the rest. Despite policy changes designed to hold rice demand down, the Ivory Coast has already contracted for 400,000 tons in 1984. Consumption has jumped from 550,000 tons in 1980 to over 700,000 tons in 1983.

Policy Emphasis Shifts to Food Crops

Recent policy changes indicate a shift in emphasis from cash to food crops. The Government is encouraging cocoa and coffee farmers with older, lower yielding trees, especially in the eastern part of the country, to convert their farms to food crops. Meanwhile, coffee and cocoa expansion is being promoted in the west. New coffee plantations are being created at the rate of 10,000 hectares per year—much below the rate at which old plantations are being taken out of production.

The Government has stopped supplying farmers with hybrid cocoa seedlings, as it did in the past. However, farmers are continuing to expand cocoa plantings because the guaranteed price eliminates the uncertainty caused by the fluctuations in prices of food crops. Unfortunately, most of these new plantings of coffee and cocoa will be lower yielding, since few hybrid seedlings are now available. The controlled-climate storage capacity for cocoa is now 100,000 tons; a new 33,000-ton silo was recently completed. Even though the extra storage was not needed this year, this capacity will enable the Ivory

Coast to stockpile cocoa in the future when world prices are low. [Margaret Missiaen]

Liberia

Economy Begins Recovery in 1984

Higher prices and increased demand for Liberia's major exports should permit GNP growth of 2 percent in 1984, after 3 years of decline. The most immediate problems are high foreign debt and the serious constraints on domestic economic activity caused by liquidity difficulties and lack of foreign exchange reserves. Continued economic growth will depend on export earnings and Government resolve to maintain budget austerity. Good weather benefited agriculture in 1983 and has continued in early 1984.

Liberia's debt and liquidity problems relate to the use of the U.S. dollar as the official currency. Goods are smuggled into Liberia from bordering countries to sell for hard currency. While smuggling boosts mineral and agricultural exports, it drains Liberia's liquidity, as dollars leave the country. Lack of foreign exchange remains a critical problem, and currently only enough currency reserves exist to cover a few days' worth of imports. Liberia must borrow dollars to meet Government operating expenses. However, the tight monetary situation has curtailed the double-digit inflation of the 1970s. Liberia's 1983 inflation rate of 2-3 percent compares favorably with that of other countries in West Africa.

Since 1980, Liberia has operated under an IMF standby agreement. The fourth standby arrangement was granted in December 1983 and provides \$57.7 million, but net inflows are lower than in previous years because of prior obligations and interest charges. The annual debt service of \$75-\$95 million includes debt contracted under the Tolbert regime. The Paris Club and London Club rescheduled \$71 million of debt in 1983. Solvency will depend on Liberia's ability to convince international donors of its continued resolve to promote investment and reduce expenses. The United States is Liberia's major donor, providing 70 percent of the nation's total foreign aid, through budget support, project assistance, and P.L. 480 concessional sales.

Rubber Production Bounces Back

Agriculture contributes 32 percent of GDP and 16 percent of export earnings. Rubber—the most important export crop—recovered in 1983, after several years of decline. An upturn in world rubber prices, from their low of 38 cents a pound in October 1982 has made rubber production profitable in Liberia. The breakeven price for Liberian rubber is estimated at 45 cents a pound. A favorable outlook for world prices should provide an incentive for investment in existing plantations.

The area planted to rubber is equally divided between foreign-owned concessions and small farmers. Increased output in recent years has come from the concessions sector, which has continued to invest in new plantings. Firestone—which produces 40 percent of Liberian rubber—is building a new processing factory. The contribution of small farmers, whose yields are only half those of the concessions, fell from 30 percent of total rubber

output in 1975 to 20 percent in 1983. Low producer prices, fixed by the concession operators, have offered little incentive for farmers to invest in the upkeep of trees. Producer prices were raised in 1983, but high marketing costs faced by small farmers could outweigh the benefits of this increase.

Unlike the small farmers who raise rubber, small producers of coffee and cocoa have started new plantings, because of the two crops' price advantage over other crops. The 1983 production more than doubled that of 1976, although smuggling accounts for part of the increase. Coffee and cocoa annually earn \$40 million in foreign exchange.

Record Rice Harvest

A bumper rice crop in 1983 led the way to a good year for subsistence agriculture. Favorable weather, combined with increased plantings, accounted for paddy production estimated at 290,000 tons, up 18 percent from the previous year. Increased production and cross-border trade assure greater domestic availability. Declining rice imports and competition from lower priced Asian suppliers will reduce U.S. commercial sales to Liberia. The P.L. 480 agreement for 1984 provides for \$15 million or 42,000 tons of concessional rice sales. (See the special article on "Changing Rice Policy in West Africa" in this issue.)

In 1983, the United States exported 8,400 tons of wheat to Liberia. This may increase in 1984, because the Government imposed a quota on flour imports to protect the domestic milling industry, which uses U.S. wheat. The American-owned flour mill at Buchanan has proposed establishing an adjacent feed mill which would draw on local supplies, but would also require imports. [Mary Bohman]

Nigeria

Economic Conditions Worsen

Both internal and external factors weakened the Nigerian economy in 1983. The petroleum sector was hurt by continuing slack world demand for crude oil, while the agricultural sector was hit by drought. Manufacturing contracted sharply when the supply of raw materials was curtailed by import restrictions. Last year's real GDP declined more than 4 percent, following a 3-percent drop in 1982. Total 1983 income in constant prices was estimated at N27 billion, or \$38 billion at the official exchange rate. That put GDP at the lowest level since 1973, when Nigeria's petroleum earnings began to soar.

Economic growth has been positive in only 2 of the last 6 years—GDP declined an average of 2 percent annually during 1978-83. The contribution of the petroleum sector to GDP has fallen from 24 percent in 1973 to about 14 percent in 1983. In 1983, oil production dropped to 1.24 million bpd, from 1.3 million in 1982. Production, which averaged only 800,000 bpd during the first quarter of 1983, rose quickly after the price was cut from \$35.50 to \$30 per barrel in February. Exports declined from slightly over 1 million bpd in 1982 to 935,000 in 1983, but earnings showed a steeper decline—because of the price reduction—from \$13 billion in 1982 to \$10 billion in

1983. Foreign exchange earnings from oil were 60 percent below the peak of 1980. Other exports have declined even more rapidly than oil, which now comprises 98 percent of the total export earnings.

The GDP contribution of the agricultural sector, which includes forestry and fishing, was about 22 percent in 1983, compared to 31 percent in 1973. This shift from the primary sector has been offset by growth in the manufacturing, construction, and service sectors.

Agricultural Output Cut by Drought, Fires, Insects

The 1983 drought took a severe toll on grain production in the north, while disease problems increased losses in the south. In many northern areas, rainfall was about half of normal. Grain output, including rice, corn, millet, and sorghum, dropped almost 25 percent from the good 1982 harvest, to 7.8 million tons. Southern Nigeria was hit by the unusually strong harmattan wind from the Sahara and by bush fires. The damage in Nigeria was not as widespread as in other countries, but yields of cocoa and oil palms were reduced. Another problem in the south has been the cassava mealy bug, which reduced production from over 13 million tons in 1980 to 11.5 million in 1983. The International Institute of Tropical Agricultural hopes to control this pest by releasing a natural predator this year.

The index of total agricultural production fell 11 points last year to 120 (1969-71=100), while per capita production declined 10 points to 79. In recent years, much of the shortfall in per capita food availability has been made up with imports.

Import Restrictions Do Not Affect Staples

Nigeria's food imports peaked at \$3.6 billion in 1981—17 percent of total imports. After import restrictions were introduced in April 1982, food imports dropped to less than \$2.5 billion—an estimated 12 percent of the total. In 1983, the first full year of import restrictions, food imports declined to less than \$2.0 billion, but their share of total imports increased to more than 15 percent. Two years of import restrictions have forced changes in the composition of food imports away from high-value items to bulk commodities. Staple foods—including grains, sugar, animal and vegetable oils, dairy products, and fish—were 62 percent of food imports in 1981, but now they make up about 85 percent.

Nigeria: Imports of selected agricultural commodities by quantity and value, 1980-83

Commodity	1980		1981		1982		1983	
	1,000 tons	\$ million	1,000 tons	\$ million	1,000 tons	\$ million	1,000 tons	\$million
Meats and preparations	35	92	37	98	40	101	30	75
Dairy products	—	283	—	270	—	273	—	250
Fish preparation	—	359	—	505	—	400	—	400
Wheat & flour	1,176	219	1,517	297	1,375	235	1,400	230
Rice	394	165	685	331	651	230	712	227
Corn	168	26	293	43	345	43	50	7
Sugar, refined	655	426	895	485	950	312	900	295
Vegetable oil	189	137	260	167	383	189	300	150

Sources: 1980-82: FAO Trade Yearbook, U.N. Trade Statistics for Major Suppliers, U.S. Bureau of the Census, and Oil World. 1983: ERS estimates. Data compiled from country of origin, and may not be consistent with Nigerian import statistics.

Part of the decrease in the value of Nigeria's food imports can be attributed to a decline in world prices for some of the major imports, especially grains and sugar. While the volume of grain imports fell about 10 percent to 2.3 million tons between 1981 and 1983, the value dropped almost 30 percent to \$520 million. Wheat imports declined from 1.5 million tons in 1981 to 1.4 million in 1983, while rice imports increased from 685,000 tons to 712,000. The most dramatic change came in corn, which dropped from 300,000 tons to about 50,000. This decrease is due to the good 1982 corn harvest and import restrictions. However, the poultry industry, which used mostly imported corn for feed, has been unable to purchase sufficient quantities of feed domestically, and production of poultry meat is likely to decline.

During the first half of 1984, the Nigerian Government has allowed food imports to rise significantly above 1983 levels. If purchases continue at the current rate, total 1984 wheat imports could exceed 1.6 million tons—a record. The United States supplies more than 90 percent of Nigeria's wheat. The Government has contracted for 400,000 tons of Thai rice and 180,000 tons of Pakistani rice for 1984 delivery. U.S. sales of rice are expected to be about 75,000 tons, well below the 124,000 sold in 1983 and less than 20 percent of the 1981 peak. By switching rice suppliers, Nigeria is able to maintain high rice imports while reducing the total cost. Since 1981, the value of rice imports has fallen by one-third.

Price Controls Unsuccessful

The Government has tried to hold down food prices. This task has proven very difficult, though, because of the shortfalls in domestic supplies. In spite of foreign exchange limits, the Government has continued to allocate foreign exchange to food imports—especially wheat and rice—to take some of the pressure off prices.

The effects of these policies, however, have not been apparent in the market. An April 1984 price survey indicated that staple prices had increased an average 50 percent since January. January prices were unusually low, however, because the military Government, which came to power in late December, tried to force prices down. This policy was temporarily effective as soldiers enforced lower prices in the markets. In many cases, though, traders refused to sell at the lower prices, and some items disappeared from the market. Since then, prices have been allowed to rise to pre-January levels. At the end of April, old Naira notes were withdrawn, leading many traders to withhold goods until customers acquired

the new currency. This exchange reduced the amount of Naira in circulation from 5.5 billion to 3.5 billion and should dampen inflationary pressures.

The Nigerian leaders are attempting to arrange Government-to-Government agreements for food purchases, especially rice, milk, and stockfish, and supplies of these items are expected to increase in June and July. By the end of the summer, domestic crops will be available. If growing conditions continue favorable, the 1984 harvest will be much better than the 1983.

Agriculture Remains Top Priority

The Federal Military Government's stated policies differ little from those of the previous civilian administration. Agriculture is to be given the highest priority to facilitate food self-sufficiency within a short time. Major General Muhammadu Buhari has said that his Government will stop staple food imports as soon as local production catches up with consumption, but the detailed plans necessary to support these policies are just beginning to take shape. Even though the broad policies are not new, implementation is likely to be more effective under the current Government. The 1984 budget (announced in May) gives education and agriculture each 8.6 percent of expenditures Defense receives more than 9 percent, while debt servicing is the largest item at 26 percent. Agriculture's share is the same as in the previous budget; however, reduced revenues have forced cutbacks in the actual amount to be spent.

In his budget speech, Buhari spelled out long-term recovery measures for agriculture. The measures will be based on the River Basin and Rural Development Authorities to be located in each state. Several of these authorities have been established in recent years to administer large-scale irrigation schemes. Most have required Government subsidies, since production costs are very high. Measures for small-scale traditional farmers include easier access to credit, more efficient provision of inputs, and higher producer prices. The Government will also consider a proposal to amend the Nigerian Enterprises Promotion Decree to enable non-Nigerians to own up to 80 percent of large farm projects.

Producer price policy will be a difficult issue for the Government, since higher producer prices will conflict with the goal of lower consumer prices. The 1983/84 guaranteed minimum price for wheat is N280 per ton, equal to \$378 at the official exchange rate. Even if the Naira is devalued by 25 percent, as the IMF recommends, the producer price of \$280 a ton would still be above the landed cost of imported wheat, which is less than \$200 per ton.

The guaranteed minimum prices for corn and sorghum are \$284 and \$297 per ton respectively, and a 25-percent devaluation would also fail to bring these prices below the \$200-per-ton cost of imports. During the last year the drought and import restrictions caused severe distortions in the corn price. Import restrictions, imposed before the drought, were not lifted as supplies dwindled, causing the price in local markets to rise above \$800 per ton. Corn is an important food grain as well as feed grain in Nigeria. Retail prices for sorghum, a staple food in the North, have risen to over \$600 a ton.

Rice supplies come almost equally from domestic production and imports. The landed cost of Thai rice is approximately \$280 a ton, while the guaranteed minimum price for locally produced milled rice is \$800 per ton. The rice consumed in urban areas is mostly imported. Demand for rice has driven the free-market price of imported rice to \$270 per 50-kilo bag, compared with the controlled price of \$50 per bag. Even at this price, which is equivalent to \$5,000 a ton, rice shortages continue.

1984 Outlook Depends on IMF Agreement

With debt servicing estimated at almost 40 percent of export earnings in 1984, Nigeria is desperately short of foreign exchange. Negotiations with the IMF for a \$3 billion extended fund facility have been going on for several months, but no agreement has been reached. The areas of difficulty are the IMF's demands for the devaluation of the Naira, for removal of subsidies on petroleum and other items, and for trade liberalization.

The outlook for U.S. agricultural exports to Nigeria will depend on the outcome of these negotiations. Currently, exports are expected to increase slightly over last year's \$334 million. For grains, which make up more than 80 percent of the total, increased wheat sales will offset declines in rice and corn shipments. Sales could be higher if Nigeria takes advantage of the \$90 million CCC grain sales program that the United States Government is making available to drought-affected African countries. U.S. exports of cotton and tobacco are expected to increase sharply because of reduced Nigerian crops in 1983. The Nigerian Government is anxious to keep local processing plants operating to reduce unemployment and to discourage smuggling of cloth and cigarettes. [Margaret Missiaen]

EAST AFRICA

Horn of Africa

Drought and War Hamper Economic Growth

During 1983, countries in the Horn of Africa—including Ethiopia, Somalia, and Djibouti—were affected by drought, the strains of the Eritrean and Ogaden wars, and a persistent refugee problem. Ethiopia's real GDP growth increased slightly to 3 percent. The country's agricultural production, providing 60 percent of GDP, expanded even though the northern provinces were dry. At 4 percent, Somalia's real growth was off in 1983, as livestock exports declined and low rainfall reduced farm output.

With rising imports more than offsetting higher coffee exports, Ethiopia's 1983 trade deficit grew somewhat, to \$800 million. Because of increased foreign aid, the country's balance-of-payments deficit remained small, about \$15 million. Somalia's trade deficit fell slightly to \$330 million in 1983, the result of a foreign exchange-induced decline in imports. The country's livestock exports dropped 30 percent after Saudi Arabia banned African cattle imports in May 1983. Somalia's balance-of-payments deficit increased slightly, to \$55 million; the increase was a result of reductions in foreign aid.

Ethiopia's Harvests Increase; Somalia's Output Declines

In 1983, northern Ethiopia—Tigre, Eritrea, Wello, and Gondar—continued to suffer from very low rainfall. Some areas experienced the fourth consecutive year of drought. Dry weather also occurred in the southern provinces of Sidamo and Bale. However, weather conditions were average in most of the country, and total farm output appears to have increased about 2 percent over 1982. (With conflicting data, it continues to be difficult to determine Ethiopia's agricultural output.) Grain production was slightly higher, between 5 and 6 million tons, composed mainly of sorghum, teff, barley, and corn. Output of pulses—mostly broad beans, peas, and chickpeas—expanded to about 600,000 tons. Efforts to increase coffee production were successful, and the crop reached 205,000 tons. In the south, the nomadic livestock sector suffered because of low pasturage.

After 2 years of excellent rainfall, Somalia was affected by drought in 1983. Crops grown under irrigation did well, but rainfed crops were off considerably. Sorghum output was 141,000 tons, down 30 percent from 1982. Output of corn—most of which is irrigated—was 140,000 tons, down 7 percent. Output of cash crops, which are not Government controlled and are more lucrative than grains, rose in 1983. Bananas expanded to 75,000 tons, and garden vegetables reached a record 110,000 tons. Sugarcane output was also higher at about 545,000 tons. Citrus and mango production expanded too.

Somalia's livestock sector, accounting for 40 percent of GDP, was affected by the dry weather, and nomads moved animals from the bush to the greener riverine areas near the coast.

Ethiopia Encourages Smallholder Service Cooperatives

Ethiopia's small farmers have suffered because of the Government's inordinate investment in inefficient state farms, heavy military spending, and the country's low levels of Western development aid. However, the authorities are attempting to provide peasants more assistance. Since 1975 a new institutional structure has evolved in the rural areas—peasant associations (PA's). About 19,600 have been formed to help implement the national development campaign and provide technical know-how to farmers. The PA's have been encouraged to form service cooperatives to benefit from economies of scale in input distribution, credit disbursement, milling, crop marketing, and other activities. In 1983, the United Nations International Fund for Agricultural Development provided Ethiopia \$11 million for use in loans to service cooperatives.

Somalia Reforms Marketing

In Somalia, monopoly control by the state Agricultural Development Corporation (ADC) over domestic grain output has been relaxed. During the past decade, producers were required to sell ADC all grain, except small quantities for home consumption, at low fixed prices. Farmers resented the intervention, preferring to sell grain at higher prices in the illegal market or store it as security against drought. In January 1984, the grain regulations

were reformed; producers are now required to sell only 5 percent of their grain crop to the ADC at fixed prices. The remainder can be stored or sold to private traders at market prices.

Somalia's short supplies of improved seed, fertilizer, and insecticide continue to constrain expansion in agricultural output. The lack of fertilizer and insecticide stems from the serious foreign exchange shortage, while the seed problem is the result of breakdowns in varietal improvement work.

Cereals Are Major Import

In 1983, Ethiopia imported \$85 million of agricultural products, compared with Somalia's \$197 million. To fill their grain import requirements, both countries rely heavily on food assistance. Over 80 percent of Ethiopia's 1983 cereal imports of 350,000 tons was food aid from Canada, Australia, the European Community (EC), and the U.N. World Food Programme (WFP).

Ethiopia's imports were largely wheat and flour, with some rice and sorghum. Imported grain was received mainly at Massawa Port in Eritrea. The Relief and Rehabilitation Committee, Ethiopia's food aid agency, was constrained in moving grain into rebel-controlled sections in the northern provinces. With large food aid receipts and distribution bottlenecks, grain storage facilities at Massawa and nearby Asmara were full by the end of 1983. Ethiopia's 1983 food imports also included about 20,000 tons of cheese, 8,000 of dry milk, and 2,000 of vegetable oil.

Somalia's 1983 grain imports declined because of lower food aid commitments and smaller commercial purchases. A gradual reduction in Somalia's refugee population has caused the loss of aid. Commercial imports were hampered by the foreign exchange shortage. Total grain imports were about 200,000 tons, with 75 percent provided as food aid from the United States, the EC, Australia, and WFP. Under Somalia's P.L. 480 Title I program, worth \$15 million for fiscal 1983, the United States supplied 24,000 tons of wheat and flour, 16,000 of rice, and 8,000 of soybean oil. Through the Title II program, 23,000 tons of corn and some soybean oil, dried milk, and blended food were donated. Somalia's purchases of Thai rice declined about 50 percent in 1983 to 25,000 tons.

Ethiopian Coffee Exports Up; Somali Livestock Sales Down

Ethiopia's agricultural exports in 1983 were \$360 million, while Somalia's were \$180 million. With a stronger world coffee market in late 1983, Ethiopia's coffee exports expanded to 85,000 tons, valued at \$250 million. About \$80 million of green coffee was shipped to the United States. Pessimistic about future increases in world demand, the Ethiopian authorities are emphasizing production of high-quality coffee rather than larger plantings. The country's other major exports last year included hides and skins, live animals, pulses, and oilseed cake.

Somalia's livestock exports, providing nearly 80 percent of the country's export earnings, plummeted in 1983. This was the result of a Saudi ban on African cattle imports because of a rinderpest scare. While apparently

free of rinderpest in 1983, Somalia nonetheless established vaccination facilities to prevent diseases and to improve sales to Saudi Arabia, its major customer. Banana exports fell slightly to \$8 million in 1983, as declining world prices offset higher export tonnage. About 65 percent of Somalia's bananas were shipped to Italy and the remainder to the Middle East. Myrrh exports tripled to \$9 million, after a new parastatal was formed to handle collection and exportation.

Grain Outlook Improves for 1984

During the 1984 spring plantings, heavy rains have ended Somalia's drought while Ethiopia has received sufficient rainfall in the central and western areas. Somalia is expected to have a larger grain harvest than 1983; however, cereal import requirements will remain high after recent stock drawdowns. Ethiopia's grain output is likely to expand and, given current stocks, imports could decline. Food distribution, however, remains a serious problem in Ethiopia. [Susan Buchanan]

Kenya

Economy Improves

Kenya's economy improved in 1983, boosted by increased exports and export prices for coffee and tea. This was the first export revenue increase since 1980. Real GDP increased about 3.7 percent, compared with only 1.8 percent in 1982. Inflation dropped from 20 percent in 1982 to an officially estimated 12 percent, as the country implemented its standby arrangement with the IMF. The value of the Kenya shilling dropped about 22 percent against the U.S. dollar, similar to the changes in 1981 and 1982.

Imports continued to be constrained, so that Kenya's trade deficit probably dropped below \$600 million. With export earnings rising sharply during the latter half of 1983, Kenya's foreign exchange reserves rose to \$380 million, a much higher level than in 1981 and 1982. Export earnings could increase again in 1984, but drought will preclude much growth in agricultural exports. Debt-service payments will likely continue to exceed 30 percent of merchandise export earnings.

Cereal Output Declines

Over the years, Kenya's agriculture has performed well. Relative to the 1969-71 base period, its agricultural production is nearly the highest in Sub-Saharan Africa. Output was up about 3 percent in 1983, but performance was mixed. Tea output was a record. Coffee and sugar output were also up, but grain production dropped.

After 1982's bumper corn crop, 1983's harvest fell 15 percent to about 2 million tons; area and yield both declined. Erratic rainfall and financial problems played a major role. Shortages of fertilizer and chemicals, as well as late payments to farmers, were related to Government budgetary reductions. The National Cereals and Produce Board (NCPB) delayed payments, partly because of financial problems due to the large 1982 crop. Credit shortages reduced use of inputs such as hybrid seed. With the 1983 crop below normal, corn use may be constrained in 1984. In 1983, stocks were relatively high, and 105,000 tons were exported to other African countries through the World Food Program.

A good wheat crop was expected in 1983, but heavy rains at harvest reduced it to about 205,000 tons. Some wheat was delivered wet. Harvest losses were increased by shortages of diesel fuel and spare parts. Consumption is increasing about 6 percent a year, and imports of 135,000 tons of wheat were expected in 1983/84, with P.L. 480 again providing a part of total U.S. sales, estimated at 70,000 tons.

Kenya's rice output declined about 3 percent in 1983, to 35,000 tons paddy. While yields dropped, consumption increased 13 percent in 1983 to 52,000 tons, milled. Imports are restricted to save foreign exchange, but much rice is imported as food aid, including some from the United States and Japan. Thailand and Taiwan have supplied rice under barter arrangements. In the medium term, rice production increases are planned under the Tana River irrigation development scheme; when implemented, this would nearly triple the irrigated rice area.

Tea Leads Economic Recovery

Kenyan tea, already a success, had a boom year in 1983. Production reached 120,000 tons, 20 percent above the previous high set in 1979. The record output is related to favorable weather, including relatively warm temperatures and good rainfall distribution. Use of individual incentives, good management, good quality control, and aggressive marketing are all part of an effective combination in the Kenyan tea industry.

Tea area is now about 81,000 hectares. Smallholders' yields average only 32 percent of estate yields; estates use irrigation and adequate fertilizer, while smallholders have suffered fertilizer shortages. In some areas, picking of medium- and smallholder tea has been insufficient because of periodic labor shortages. Kenya's main tea markets are the United Kingdom, Pakistan, the United States, Egypt, Canada, Ireland, and Sudan. Kenya has generally ignored calls to moderate tea output so as to avoid oversupplying the world market. So far, its strategy has been successful. World tea prices declined about 28 percent between the 1977 boom year and 1982, when the current rise began. But, the drop was less than for coffee and cocoa, whose prices fell 49 and 54 percent, respectively, from 1977 to 1981.

Coffee Output Increases

Recent estimates from a Kenya Coffee Board survey indicate 1983/84 production was up about 11 percent to 102,000 tons, equaling the previous high of 1981/82. Weather conditions were good, more trees were bearing, and farmers responded to available credit, higher prices, and prompt payments with yield-improving practices. In 1981 and 1982, coffee yields in the smallholder-cooperative sector were about 55 percent of those on estates. In 1983, the Smallholder Coffee Improvement Program was instrumental in increasing yields. Banning interplanting of food crops among coffee trees was probably a factor. With coffee prices low in 1981, and food supplies tight, smallholders gave increased priority to food production.

Coffee exports are expected to be up about 3.4 percent, to 88,500 tons, during the 1983/84 ICO year. Of this, 91 percent is under quota, with the rest going to nonquota markets. Early in 1984, ICO quotas were increased and

prices were strong, with the average for all Kenya coffee at about \$3,000 a ton. A less favorable aspect is that the increased production, combined with limited exports, has raised stocks, which could total 61,000 tons at the end of the current marketing year. Under the 1982/83 quota, Kenya's leading coffee buyers were West Germany, the United States, the Netherlands, the United Kingdom, Sweden, and Finland.

Corn Policy Stresses Stocks

Kenya's agricultural policies continue to be a mix of free enterprise and Government intervention. The Government does not usually act as a manager of business, and it is considering an increased role for the private sector in grain marketing. In the case of grain stocks, however, the Government has continued to maintain control through the NCPB. Thus, following the good corn crop of 1982, when a record 618,000 tons were delivered to the board, exports were limited to 77,000 tons and stocks reached 620,000 tons. This accumulation was to prevent a repetition of 1979's fiasco, when corn was exported while stocks were dropping. The next year, a poor crop necessitated large, costly imports. Smallholder deliveries of corn to the board are of growing importance, and it has increased the number of buying centers.

In 1983, with stocks large and profit margins still restrained by Government-set prices, the board was again financially squeezed, and payments to farmers were delayed. Before the bumper 1982 crop, corn producer prices were increased by 37 percent, to end import dependency. Prices were increased another 22 percent in 1983, but only 8 percent in 1984. A good stock position in early 1984, combined with the NCPB's financial problems, may help explain the relatively low increase.

Drought Will Lower Output in 1984

Kenya's agricultural and economic outlook for this year suddenly turned unfavorable when the main rains of April-June only amounted to about 45 percent of normal levels. All crop production is likely to be reduced. Initially, relatively large stocks will cushion lower coffee and corn crops, but tea stocks are not big. Even with the high corn stocks, record imports of 500,000 to 800,000 tons will be needed during 1984/85. With damage widespread, not only will domestic purchases by the board be reduced, but corn sales by the board could increase to about 40 percent of domestic consumption in order to meet higher demand. The dry weather has already reduced tea production considerably, so that 1984's output is forecast down about 10 percent. Kenya's export tea prices have remained high. In April 1984 they were nearly 70 percent above April 1983. [Lawrence A. Witucki]

Sudan

Despite Reforms, Economy Moves Slowly

Sudan's real economic growth in 1983 was less than 2 percent, a disappointment after 1982's stringent economic and financial reforms, which included a devaluation. Agricultural output, providing 40 percent of GDP, expanded 5 percent despite a drought which affected the

west. A bumper cotton crop contributed to the sector's improvement. But, industry, providing 7 percent of GDP, stagnated because of oil shortages, lack of spare parts, and underutilized capacity. The service sector, including trade and transport, also showed little growth.

Measures to reduce Government budget expenditures in 1983 included 40- to 60-percent increases in consumer bread prices, removal of subsidies on pharmaceuticals, reinstatement of an excise tax on sugar production, and a 3- to 13-percent hike in customs duties on many imported goods. Because of these changes, the Government's reliance on domestic borrowing was reduced and the budget deficit declined. Sudan's external debt is huge—\$8 billion. The Government rescheduled a large portion of payments falling due in 1983 with principal creditors, including the Club of Paris, Saudi Arabia, and Kuwait. Similar rescheduling arrangements have been made for 1984.

The country's trade deficit fell from \$1.3 to \$1.2 billion in 1983 as import growth stabilized—partly because of the devaluation—and exports rose. Burdensome petroleum imports increased only slightly, to about \$475 million. Cotton exports expanded over 30 percent to \$370 million. With increased commodity exports and higher remittance inflows, the balance-of-payments deficit declined 60 percent in 1983 to \$80 million.

Drought Cut Rainfed Crops; Irrigated Cotton Output Up

Sudanese agriculture is made up of a capital-intensive irrigated sector, a mechanized rainfed sector, and a traditional rainfed sector. Darfur and Northern Kordofan, both rainfed areas, were seriously hurt by drought in 1983, while central and southern Sudan had favorable weather. Aggregate agricultural output expanded in 1983, led by cotton. Grain output was 2.5 million tons, slightly above 1982's drought-reduced crop but well below the record 1981 harvest. Output of sorghum, the major cereal, was 1.98 million tons. Sorghum is cultivated in both traditional and mechanized rainfed areas. Under mechanization, wealthy farmers grow sorghum for export. Peanut production in 1983 was 5 percent above the previous year but still below trend. Peanut plantings have been declining, partly because of a rural labor shortage. Sesame seed output exceeded that of 1982 but was also below trend.

Cotton production expanded 5 percent to 204,000 tons of lint in 1983, a result of dry weather and changes in the cost accounting system on the Gezira Scheme. Additionally, the problem of white flies, pests that leave a sticky residue on cotton, has been ameliorated; DDT has been replaced by other insecticides and changes in aerial spraying techniques.

Policy Changes Help Cotton Output

The rebound in cotton, Sudan's leading export, is the result of an export action program designed by the Government and the World Bank. Several significant reforms have been accomplished in recent years. In 1981, the joint account system on the state-run Gezira Scheme was replaced with individual accounts. Under the old system, the sharing of input costs and revenues

caused a bias against cotton production among the tenant farmers. Under the new system, separate accounts for each farmer heighten incentives to cultivate cotton. One noticeable result has been an increase in the amount of labor devoted to cotton production.

Furthermore, cotton pricing has been reformed. Prices are now publicly announced in early December, well before harvest. Tenants are paid promptly for cotton on delivery. These measures have removed much of the uncertainty over income and cash flow that prevailed among cotton farmers earlier.

Wheat and Sugar Are Principal Food Imports

Despite its large agricultural sector, Sudan is heavily reliant on food imports, particularly wheat and sugar. Wheat and flour imports in 1983 came to 450,000 tons, somewhat below the previous year. The United States was the major supplier, providing 170,000 tons under the P.L. 480 Title I program and 130,000 under the Commodity Import Program (CIP). France supplied about 80,000 tons of wheat and flour commercially. Australia, France, and the EC also provided some wheat aid. Sugar imports fell slightly to 170,000 tons, as Sudan continued striving to reach self-sufficiency in the commodity. France, West Germany, and Brazil were the major suppliers. Rice imports, which have been rising, totaled about 30,000 tons, from Thailand, Italy, and Pakistan. About 20,000 tons of tallow were imported from the United States under the CIP.

Cotton Exports Up; Sorghum Sales Off

Agricultural items provided 95 percent of Sudan's 1983 exports, worth \$650 million. Sales of cotton expanded to 220,000 tons. The Cotton Public Corporation marginally increased export prices of top- and low-grade Barakat cotton. Sales were bolstered by low world supplies and improvement in the quality of Sudanese cotton because of whitefly eradication.

Livestock exports increased 30 percent to \$125 million. The ban on African cattle imports by Saudi Arabia, Sudan's major livestock customer, did not hurt exports, since Sudan ships mainly sheep and goats. Sorghum exports fell from 388,000 tons in 1982 to 280,000 in 1983. The decline primarily resulted from Saudi Arabia's removal, in March 1983, of a price subsidy on Sudanese sorghum imports. Saudi Arabia is Sudan's principal sorghum customer. To make Sudanese sorghum—which is relatively high priced—more competitive in the world market, the Government lowered fumigation fees and removed the 5-percent development tax on exports. Sorghum traders are still unhappy about a 10-percent flat tax on exports and a 5-percent defense tax. Last year, Sudan also exported 99,000 tons of groundnuts, 19,000 tons of groundnut oil, and 90,000 tons of groundnut cake and meal, for a total value of \$55 million.

Sudan is a major recipient of P.L. 480 aid, CIP assistance, and military aid from the United States. Total U.S. agricultural exports to Sudan, including concessionary sales, were \$59 million in 1983. The country will continue to be an important market for American wheat and

tallow. However, because of its sizable trade deficit, external debt, and foreign exchange shortage, Sudan's commercial imports are not likely to expand in the near term. [Susan Buchanan]

Tanzania

Economic Malaise Continues

Tanzania's GDP declined an estimated 1 percent in 1983. Although export earnings were low in both 1982 and 1983, imports, which are strictly controlled, declined last year for the third consecutive year. The decline likely resulted in the lowest deficit since 1977. Debt-service costs are increasing, however, and for 1983 they were estimated at 28 percent of export earnings. They could be higher in 1984. One result is that international reserves dropped very low in 1983, to about \$5 million—less than 2 percent of their 1977 level.

Last year's agricultural output did not change from the previous year. While food production increased slightly, on a per capita basis it dropped to new lows. Despite generally good weather, crop output is estimated to have declined slightly; shortages of imported inputs continued to cripple agriculture, as well as other economic activity. Consequently, Tanzania was unable to take full advantage of increases in export commodity prices. Tea output and exports increased, however, and the downtrend in cotton production may have been halted. With the strengthening of export prices for tea, coffee, and cotton, estimated export earnings from agriculture increased.

Food Aid Needs Increase

In 1983, grain output dropped marginally. Corn production dropped slightly after reaching the relatively high level of 1.43 million tons in both 1981 and 1982. Sporadic dry weather, input shortages, and delayed payments to producers were factors in the decline. Official corn purchases have dropped from 220,400 tons in 1978/79 to 85,000 in 1982/83. On the other hand, the unofficial market is growing, resulting in diminished Government control over food production and distribution. In 1983, grain stocks dropped to a new low, estimated at 23,000 tons.

Corn import requirements continue large and may increase to 240,000 tons during 1984/85, from about 220,000 the previous year. Production of other cereals was static, and rice import needs during 1984/85 could be 80,000 tons, compared with last year's 60,000. An estimated 70 percent of Tanzania's cereal imports will be as aid in 1984/85. This is about the same proportion as during 1983/84, when a total of 330,000 tons was imported. U.S. agricultural exports to Tanzania dropped to \$11.2 million in 1983. They were mainly rice under P.L. 480, wheat, and some soybean oil.

Coffee Production Lower

Coffee production in 1983/84 dropped 3 percent to about 60,000 tons; causes were the same as for the corn decline. Factory breakdowns and slowdowns in transport also caused processing delays, which lowered the quality of the beans. The combination of problems facing coffee producers seems sufficiently serious to partially negate a 33-percent producer price increase in 1982/83 and a 40-percent increase in 1983/84.

Tanzania has been very successful in marketing its coffee, and its stocks have not become excessive. Coffee exports in 1982/83 were 62,460 tons; slightly over 30 percent went to nonquota markets. Tanzania's new base quota under the ICO for 1983/84 was 42,448 tons, but exports should total 61,400 tons.

Producer Prices Raised Sharply

Many producer prices were sharply increased in 1983. All major export crop prices went up 40 percent, but food crop price increases ranged from 33 to 82 percent. However, inflation was 27 percent, one of the highest rates in the region. For the 1984/85 marketing season, corn prices, in recommended growing areas, were increased by 82 percent to Tsh4 per kilogram (Tsh12.2=\$1). This makes the corn price equal to the wheat price, which was increased by 33 percent. Cassava and bean prices were also increased, by 67 and 60 percent, respectively. Prices of rice, sorghum, millet, and oilseed crops were increased by 50 percent.

Consumer prices for cornmeal remained at Tsh2.5 per kilogram during 1982/83. Thus, the subsidy of corn consumption remains high. In August 1983, the Government reduced restrictions on moving grain within and between districts. The quantity that can be transported by private traders was increased from 30 kilograms per person to 500.

Import and Investment Constraints Must Be Overcome

A major factor in Tanzania's outlook is whether it reaches an acceptable agreement with the IMF. Donors are unlikely to provide much new assistance without such an agreement. Increased imports and investment are essential if the Tanzanian economy and agriculture are to recover from the current malaise. Improved relations among the East African countries, particularly between Tanzania and Kenya, should increase regional trade, and efforts are underway to work out payment arrangements.

In early 1984, dry conditions developed in the northern areas and the crop outlook there was not favorable. With reasonable weather overall, cotton and coffee production are expected to improve, and agricultural export earnings could also rise. However, if the severe constraints on imports and investment are not resolved, the volume of agricultural exports could stagnate, as production and marketing bottlenecks continue. (*Lawrence A. Witucki*)

Uganda

Structural Adjustments Progressing

The major economic policy changes undertaken as part of Uganda's structural adjustment program appear to be paying off. Real GDP, led by increases in agricultural production, grew 8 percent in 1982/83, continuing a pattern of growth which began in 1980/81. However, real GDP has not increased in U.S. dollar terms, given the massive devaluations of the Uganda shilling that began in 1981 and are integral to the adjustment program.

Uganda's balance of trade has improved. Exports, led by coffee, increased in both 1982 and 1983, while imports (in dollar terms) have not increased significantly since 1979. However, debt service, estimated at 40 percent of export earnings in 1983, remains steep, and export growth is essential for continued economic growth. The domestic price of adjustment has been high. According to the IMF, during the last 3 years, the cost of living in Kampala increased by an average of 58.5 percent per year.

Agricultural Output Increases

Since 1980, when Uganda's index of agricultural production was the second lowest in Africa, agriculture has shown consistent growth, with the 1983 increase estimated at 7.5 percent. Despite the impressive gains—nearly 20 percent over the last 3 years—the estimated index of agricultural production in 1983 is only slightly above the average during the base years 1969-71. Uganda still has much progress to make to compensate for the losses during the Amin regime. Per capita food production has been increasing since 1980, though, leaving the 1983 per capita food production index at 81, only 2.4 percent below the average for Sub-Saharan Africa.

Uganda's agricultural policy features sharp price changes administered by the Government following the recommendations of the IMF. Beginning in 1981, controls on producer food prices were removed, and prices for cash crops were increased several times. By February 1984, producer coffee and cotton prices had been increased by 15 times over 1980, and tea by about 20 times. But, these price increases were less than the 32-fold exchange rate devaluation.

In 1983, Uganda's cereal imports—all food aid—were estimated at only 15,000 tons, down from a high of 57,000 in 1980/81, when drought and internal disorders created a food emergency. Uganda is not expected to have major food aid requirements this year. U.S. agricultural exports to Uganda dropped from \$9.0 million (mainly feed grain and oilseed products) in 1980 to only \$37,000 in 1983. They are expected to be low again in 1984. In contrast, U.S. agricultural imports (almost entirely coffee) have increased from \$81.4 million in 1978 to \$103.8 million in 1983.

Export Recovery Led by Coffee

Coffee production increased sharply in 1983 to 192,000 tons, slightly above the average during 1969-71. Recovery in other major cash crops—cotton, sugar, and tea—has been weaker. For example, the output of raw sugar averaged 147,000 tons during 1969-71, but it was

Year	Uganda's coffee exports		
	Quantity	Value, f.o.b.	Average price
	Tons	\$ million	\$/lb.
1980/81	118,353	230.5	0.88
1981/82	167,139	321.6	0.87
1982/83	131,693	291.1	1.00
1983/84 ¹	² 144,000	349.5	1.10

¹Forecast. ²Allocations since increased.

estimated at only 15,000 in 1983. Unlike coffee, which is largely a smallholder crop, increasing sugar and tea output will depend in part on rehabilitating large estates, which will require heavy capital investment. According to the Madhavani group of India, their Ugandan sugar operations, valued at \$100 million in 1972, now require \$50 million to be rehabilitated.

While coffee production is projected to increase by 6 percent in 1984, and export coffee prices have been strong, Uganda cannot depend solely on coffee. Its ability to increase coffee exports further is being seriously limited by its ICO export quota and by transport problems, which at times have prevented exports to nonquota markets. While 1983/84 (Oct.-Sept.) coffee quota export earnings are forecast to increase to over \$350 million, large stocks have accumulated, representing a financial burden and holding up much-needed investments in other enterprises. [Lawrence A. Witucki]

CENTRAL AFRICA

Zaire

Stringent Stabilization Measures Introduced

In 1983, Zaire instituted major economic reforms. They should improve long-term growth prospects, but they have also had many harsh immediate effects. The key measure was an 80-percent devaluation of Zaire's currency against the dollar, with consequent exchange rate reform. The trade system was liberalized and simplified, the budget deficit reduced, some taxes raised, and a ceiling placed on wage increases. Fuel prices were boosted, raising transport costs and retail prices for other goods, including domestically produced food. The inflation rate in Kinshasa soared to an estimated 76 percent in 1983, from 37 percent the year before.

Zaire's external financial outlook has improved over the last year, but problems remain formidable. Largely in response to reforms, the Club of Paris rescheduled some debt at the end of 1983, for the sixth time in 8 years. Zaire then gained an IMF standby arrangement. Despite continuing weak prices for the leading export—copper—the volume of mineral exports increased in 1983, raising export revenues.

Agriculture Below Potential

In recent years, production of the major food crops has increased steadily. Overall, though, these increases have not kept pace with population growth. As a result of projects to improve technology and services, marketed corn production has made striking gains. However, serious shortages have occurred within the Shaba region in 1983 and 1984 because normal imports of corn have been interrupted by drought in South Africa and Zimbabwe, the regular suppliers. Logistics make importing from alternative sources more difficult, while devaluation has also made the imports—formerly cheaper than domestic supplies—more costly.

In late 1983 and early 1984, massive increases in urban food prices occurred. The jumps related to recent economic changes and high marketing costs. Average nutritional

levels were already low, and the price rises further eroded the purchasing power of low-income groups. Cassava prices soared following the sharp increase in fuel prices, while the lower valued currency has made wheat and other imported food more expensive. In Shaba, shortages have forced corn prices upward.

Output of most cash crops has been more uneven than food production. Current policy emphasizes increases in cotton and sugar output to meet local needs, while targeting palm oil and cocoa as priority export crops. Coffee remains the major agricultural export, accounting for about 7 percent of total exports, trailed by rubber at about 1 percent. Coffee exports increased slightly in 1983, to an estimated 69,500 tons, but they were still below levels of the 1970's, and a large stockpile of coffee has reportedly developed. Coffee smuggling is still a problem, and this makes coffee statistics questionable. Zaire has an ICO export quota of 66,000 tons, and has had only limited success in exporting to nonmember markets.

Development Plans Emphasize Agriculture

Zaire's development plans put priority on agriculture. Despite more reliable rainfall than most Sub-Saharan countries, its yields are generally below the average because of low levels of technology and low input use. Although no quick payoffs can be expected from all projects and investments, certain policy adjustments have more immediate potential to stimulate output and sales. The recent policy calling for the liberalization of prices is a hopeful sign, although this has not necessarily extended to all regions of the country. In Shaba, for example, controls on wholesale prices for corn still depress farm prices.

Unreliable or expensive marketing is one of the foremost obstacles confronting farmers in Zaire, with poor transportation underlying many of these problems. Under the current economic recovery program, large investments are slated for the rehabilitation and maintenance of Zaire's notoriously deteriorated roads and infrastructure. Progress has been slower than planned. Eventual improvements could reduce the high risk that now confronts the predominantly private marketing sector. Risk partially explains large marketing margins, but in some areas there are barriers to entry and a lack of competition. [Peter A. Riley]

SOUTHERN AFRICA

Madagascar

Economy Improves

After several years of stagnation and decline, the Malagasy economy is beginning to revive. In 1983, real GNP increased 1.6 percent. This represented a significant improvement, since real national income had declined an average of 6.6 percent a year between 1978 and 1981. Inflation retreated slightly to 23 percent, and because of a series of devaluations and the upturn in raw commodity prices, Madagascar's terms of trade and balance of trade also improved.

Actions of the IMF dominate Madagascar's economic policies. In 1982, Madagascar was on the verge of an international liquidity crisis, and in 1983 its debt-service ratio was expected to exceed 78 percent. In order to reschedule its debt and free foreign exchange holdings for purchasing necessary imports, Madagascar adopted an economic austerity program, including devaluation. The most recent devaluation occurred in April 1984.

Following the storm-damaged crop of 1982, aggregate agricultural production improved in 1983. Paddy production is estimated at 2.1 million tons, up from 2.0 million in 1982. Coffee production reached 81,000 tons—55,000 of which were marketed. Vanilla output remained at 4,100 tons, green basis, and clove production, now in the trough of its production cycle, fell to 6,000 tons from 1982's 15,800.

Rice Policy a Target for Reform

Rice is the staple of the Malagasy diet, and the level of per capita rice consumption is one of the highest in the world. Close to three-quarters of the population is engaged in growing rice—the production system is more akin to Southeast Asia than to Africa. Most rice is consumed by producers. Moreover, because of declining real producer prices offered by official marketing agencies, and a deteriorating transportation system, the proportion of production marketed has declined in recent years. In addition, tropical storms in 1982 destroyed much of the marketable surplus and further eroded the transport system.

As a result, rice shortages emerged in the major urban areas, where consumer prices were subsidized, and imports totaling 357,000 tons covered the shortfall in 1982. The opportunity cost of food imports is considerable, since they divert scarce foreign exchange from industrial inputs—especially fertilizer—and from capital goods necessary for sustained production. Consequently, reform of rice policy has become a priority. Reforms implemented during 1983 include cutting consumer rice subsidies, allowing procurement prices to reflect regional differences in the cost of production (previously there was a national price), and allowing private traders to engage in rice marketing (previously only state marketing agencies could legally trade rice).

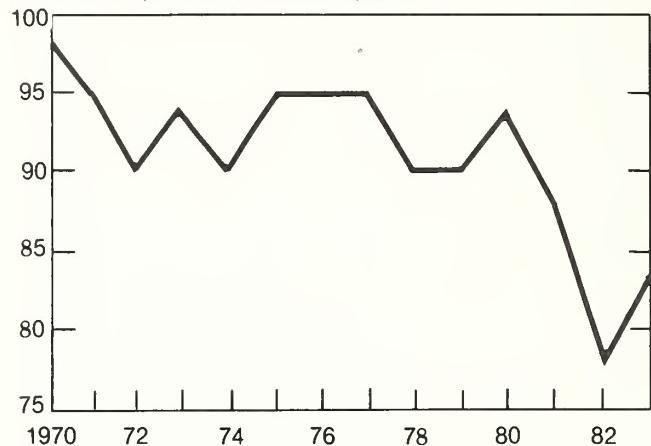
Rice Imports To Stay High

So far this season, four tropical storms have inflicted damage on Madagascar's primary growing areas. Rice is planted in October and harvested during May-June. The most severe storm struck in mid-April, destroying Antsiranana, a northern port, and turning the Marovoay basin rice irrigation area into mud flats. This destruction is especially unfortunate in light of the ambitious reforms undertaken. As a result, rice shortages have again emerged in urban areas, and cases of starvation have been reported in Tulear province—a southern rice-deficit area. Transportation constraints and destruction of marketable surpluses appear to be the cause of these shortages.

Because of the storm damage, rice imports in 1984 may reach 200,000 tons. Thailand and Burma have become Madagascar's principal commercial suppliers; the United

Rice Self-Sufficiency in Madagascar

Production percent of consumption



States and Japan regularly supply rice on concessional terms. Increased demand for soybeans is anticipated during the next few years—perhaps for as much as 25,000 tons annually—because crushing needs currently exceed domestic production.

In 1982/83, U.S. imports from Madagascar rose 20 percent from the previous year, reaching \$58 million. Madagascar is the largest exporter of spices to the United States. Sales of vanilla—\$39 million in 1983—account for the bulk of this. Clove imports by the United States reached \$2 million last year, and coffee, \$18 million. [David Skully]

Malawi

Strong Agricultural Performance Stands Out

Buoyed by record corn and tobacco crops, Malawi's real GDP in 1983 increased an estimated 4.9 percent, in contrast with only 2.9 percent in 1982. However, the economic picture was marred by difficulties in external transactions. While Malawi increased tea and corn export earnings, lower tobacco prices and continued low sugar prices, combined with transportation blockages, kept export earnings static. In addition, import costs increased, partly because of high transport costs. Debt-service costs rose sharply, while international reserves were reduced. The IMF's Extended Fund Facility and the World Bank's Structural Adjustment Loan are enabling Malawi to make its external payments.

Malawi was one of the few Southern African countries not seriously affected by the droughts of 1983 and 1984, and it is the only one not in need of major food imports in 1984. It is also the only Sub-Saharan African country with 1983 per capita food production above the 1969-71 period. From its bumper 1983 corn crop, estimated at 1.5 million tons, Malawi exported 160,000 to 180,000 tons, while maintaining per capita corn consumption at slightly under 200 kilograms. Wheat consumption is very low, about 5 kilograms per capita, but it is slowly increasing through imports, which were an estimated 40,000 tons in 1983.

Corn Self-Sufficiency Stressed

Following the drought-reduced corn harvest of 1980, serious food shortages developed and unusual corn imports were required. Malawi's imports involve considerable risk because of an insecure external transport system, making corn self-sufficiency a major goal. Accordingly, the Government raised the producer corn price by 30 percent in 1981 and another 67 percent for the 1982 harvest. Prices of other crops were not raised as much, however, and became less attractive than corn, apparently explaining decreased smallholder deliveries of peanuts, rice, tobacco, cotton, and pulses.

In recent years Malawi has invested heavily in costly marketing infrastructure and services. The state marketing board (ADMARC) has set up some 900 buying locations offering minimum prices. This has brought many smallholders into the official market system, despite their traditional labor-intensive production technology. Although corn can also be sold in private markets, deliveries to ADMARC have increased sharply since 1980, to an estimated 260,000 tons in 1983. Malawi has also completed a complex of concrete silos, with a capacity of 180,000 tons.

Modest Gains Likely for 1984

The 1984 corn crop is about equal to the 1983 harvest, and corn export earnings could increase. For 1984, the corn producer price was increased by only 10 percent, while prices of other crops were increased more. Peanuts, for example, were boosted 70 percent. Despite the recent increases, Malawi's corn price, equivalent to \$89.50 per ton, is still low when compared to its neighboring countries at official exchange rates. Corn appears to be a promising export given the regional food situation, the possibility of external financing by the EC or World Food Program, and the likelihood of transport cooperation from importing neighbors.

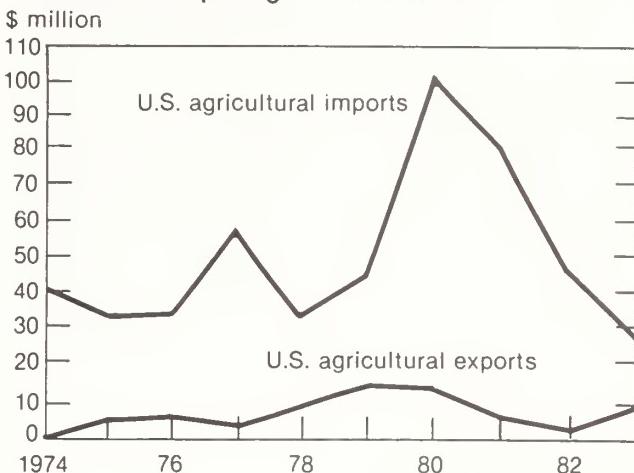
High world tea prices in early 1984 should raise export earnings. Sugar production and exports are expected to be up, but low prices will probably continue to dampen export earnings. Overall, Malawi's exports should increase in 1984. Debt-service costs should drop slightly and import capacity increase slightly. The economy is expected to expand about 4 percent. [Lawrence A. Witucki]

Mozambique

Deterioration of Economy Leads to Reforms

Drought and warfare through early 1984 have devastated Mozambique's already weak economy, now in the worst condition since independence in 1975. Famine exists in parts of the country, and Mozambique probably has the most severe food crisis in Africa. In 1983, exports may have fallen by as much as 40 percent, while low imports have meant shortages of essential goods, crippling economic growth. Agricultural exports to the United States, Mozambique's leading market, were just 27 percent of the peak 1980 level. Most alarming was a striking drop in crude oil imports—by 80 percent, according to one source. In the past year, for the first time, Mozambique failed to meet its debt-service obligations—now

U.S.-Mozambique Agricultural Trade



estimated at 80 percent of exports. The nation is seeking rescheduling of its \$1.4 billion debt to Western creditors.

In 1983, the Government undertook a major reappraisal of its policies and indicated that it would give more support to private enterprise, particularly in agriculture, to stimulate growth. This approach has been reaffirmed in 1984, with plans for tighter management and cuts in spending, including subsidies. Mozambique is also seeking foreign investment and is applying for membership in the IMF/World Bank grouping. In March 1984, Mozambique signed the Nkomati Accord—a nonaggression pact—with South Africa. This is expected to lead to improved economic cooperation and more investment. Gradual improvements in security are likely with the end of South African support for guerilla fighters.

Severe Food Shortages Persist

The combination of guerilla disruption and drought has had a disastrous impact on food production in the southern half of the country in the last 2 years, leading to many deaths. In addition to cereal and pulse shortfalls, there have been losses of the more drought-resistant staple cassava. Tragic shortages have developed in Tete and Manica provinces in 1984, and thousands of people have fled to neighboring Zimbabwe.

The massive food problems that occurred in Gaza and Inhambane provinces in 1983 may have eased somewhat, but supplies are increasingly tight in the cities.

Although conditions have been more normal in the north of the country, there is little available surplus. The cyclone Domoina and resulting floods ravaged parts of Maputo province in February 1984, destroying crops, livestock, equipment, and infrastructure, and choking off recovery in this important area.

Mozambique's cereal import requirements soared to some 600,000 tons in 1983/84, but actual imports only reached an estimated 467,000 tons. Import needs will be similar or slightly higher for 1984/85. The United States has donated over 71,000 tons of commodities as emergency aid in fiscal 1984. Large inflows of food aid have been received from other sources as well, but the aid has apparently not been sufficient in the face of such mas-

sive needs. Rural relief efforts have been hampered by difficult logistics, with shortages of fuel and vehicles, and distribution has been further disrupted by guerrillas.

No Quick Solutions

Mozambique's agricultural output has declined steadily in recent years, and periodic weather problems account for only some of the drop. During 1980-82, before the worst drought year, estimated total agricultural output stood at only 90 percent of the 1969-71 average, and just under 70 percent on a per capita basis. Much of this decline is related to the lack of incentives for farmers. Marketing services are weak, the currency overvalued, and available consumer goods few. Shortages of inputs and reliable equipment handicap operations, and the previous emphasis on large state farms resulted in management problems.

The Government has recognized these difficulties and initiated encouraging policy changes. Foremost is the decision to support the peasant family sector as well as the small, private commercial sector, and to downplay state farms. In fact, some are being withdrawn from state operation and divided into smaller units. The status of cooperatives is uncertain.

Mozambique lacks the resources to maximize gains from these shifts and needs large amounts of outside capital. The lack of foreign exchange to buy fuel, parts, and other requirements is a major constraint. Once started, improvement in the flow of goods to the rural areas could bring an immediate increase in sales of cashews, the main export, with other products following. However, in the short term, the widespread displacement of farmers and other disruptions stemming from the guerrilla insurgency must be overcome. Improved security will also allow increased use of Mozambique's ports and rails by neighboring countries, raising foreign exchange earnings.
[Peter A. Riley]

South Africa

Drought Affects Economy

South Africa's economy and its drought-damaged agriculture were intertwined more closely than usual in 1983, with huge losses from poor corn and oilseed crops reflected in the country's credit and financial markets. Real GDP was negative again, down an estimated 2.9 percent. Agricultural GDP dropped by nearly 22 percent, as the drought took its toll. Agriculture's decline is likely responsible for more than half the total GDP loss. The other big factor was the 6.6-percent drop—in real terms—of South Africa's exports of goods and nonfactor services. However, imports of goods and services fell by nearly 16 percent. As a result, a small current account surplus of \$248 million was realized in 1983, after deficits in 1981 and 1982. Without the drought, this surplus would have been much larger.

Inventory declines were sharp, probably related to the utilization of agricultural stocks because of the drought, and to the high interest costs of stock holdings in general. While volume of total mining production dropped, gold output increased 2.3 percent, showing an export value increase of 16 percent, to \$9.2 billion. With demand depressed and wage increases smaller, the inflation rate dropped to 12.3 percent from 14.7 in 1982.

However, the South African Institute for Race Relations estimates that the cost of living for blacks rose by 16 percent.

Farm Output Plummets

South Africa's agriculture, already down 11 percent because of dry conditions in 1982, dropped 16 percent in 1983, to the lowest level since the drought of 1973. Also for the first time since 1973, both the food and agricultural output indices were below the Africa average. Livestock output, however, increased again, by about 2.5 percent. In fact, it is 38 percent above the 1969-71 base, and has kept pace with a population growth of 2.5 percent per year. In contrast, crop production—much more unstable because of weather—fell by 20 percent in 1982 and 29 in 1983.

Corn output last year was only 4.075 million tons, down 51 percent from 1982 and the lowest since 1958 and 1959. Area planted was 4.065 million hectares, the smallest since the 1973 drought. Corn area has tended to decline since the mid-1970's because production costs have risen sharply. Average yield in 1983 was 1.003 tons per hectare, the least since 1964's 0.965 ton.

During the 1983/84 marketing year, South Africa's corn imports rose to an unprecedented 2.4 million tons, while exports dropped to only 285,000 tons. A year earlier, exports were slightly above 4 million tons. In early 1984, corn stocks were low, and when the dry weather returned in January, South Africa sharply stepped up its imports.

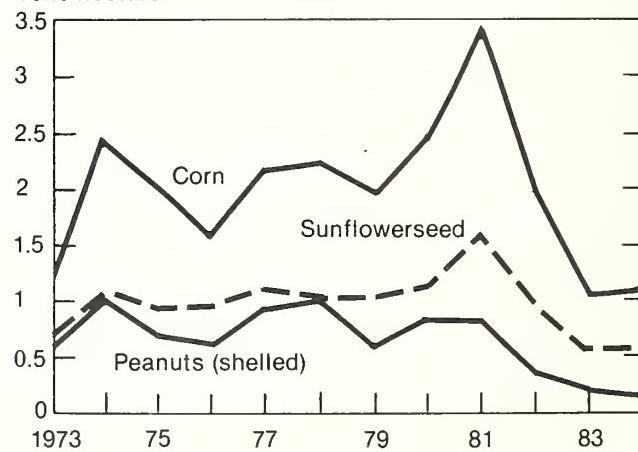
The 1983 oilseed crop was low. Production of sunflowerseed, peanuts (in shell), soybeans, and cottonseed totaled only 370,000 tons, compared with a record of over 950,000 in 1981. The decline forced imports of oilseed products. Peanut output was the smallest since the 1940's. The sunflower crop, only 202,000 tons, was 39 percent below the record 1981 harvest and the smallest since 1972.

Fertilizer Use Reduced

Fertilizer use has dropped 25 percent since 1981. Fertilizer expenditures in 1983 declined by nearly 15 percent

South Africa's Major Summer Crop Yields

Tons/hectare



because of the weak financial position of producers and relatively high fertilizer prices. In the main corn-growing areas, fertilizer use was estimated down 39 percent from 1981; nitrogen use was down 44 percent. Farmers' credit needs and debts have multiplied, particularly because of shrunken corn yields. Interest costs have become a major burden. Given the recurrence of drought in early 1984, and continued weak finances among farmers, fertilizer sales may not increase.

Corn Prices Raised

Rapid increases in production costs are threatening the export competitiveness of South African corn. Even before recent droughts, Government assistance financed losses incurred on exports. Not since 1976 have South African producer corn prices (in dollar equivalents) been below those in the United States. In 1980, when the Rand was relatively strong, South African corn producer prices exceeded U.S. prices by \$42 per ton. In May, after a 28-percent increase in net producer prices for yellow corn, to \$172 per ton, South African prices again exceeded U.S. prices by about \$40. This was despite a large depreciation of the Rand against the dollar.

The issue of export competitiveness has been postponed until 1985, since the 1984 harvest is only 4.4 million tons. This crop, coupled with low stocks, means that import requirements during the 1984/85 marketing year (May-April) will be a record 3.0 million tons, with exports limited to Botswana, Lesotho, and Swaziland. A two-tier marketing system had been recommended for the 1985/86 corn marketing year, but it will not be necessary unless there is a bumper harvest. Under the two-tier system, quotas would be applied to each producer's delivery to the domestic market at set prices. Corn deliveries above quota would be sold for export, where prices probably would be lower than the set domestic prices. Thus production for export would be discouraged.

The back-to-back crop failures are having the expected repercussions on the domestic corn market. At the end of April, the Maize Board's selling price for white corn was increased 20 percent to \$179.60 per ton. This was on top of a 10-percent increase in January. As a result, wholesale consumer corn prices in May were 32 percent above May 1983; by contrast, the increase from 1982 to 1983 was only 9.5 percent.

The cost of imported corn is a big factor in the large price increases. In early 1984, the cost of corn unloaded at South African harbors was \$181.20 a ton. Domestic distribution and storage costs are subsidized by the Government, and in the 1983/84 marketing year, this subsidy amounted to about \$100 million. The price of corn meal—the staple of many South African blacks—rises in concert with the Maize Board's selling price. With high unemployment, many households will spend a larger portion of their income for food. South African official corn prices are now relatively high for Southern Africa, but unofficial market prices in the region are probably higher.

Partial Recovery in 1984

Losses from the 1984 drought were less severe than from the 1983 drought, with corn output up about 8 percent.

Movement of South African corn and related prices and U.S. corn prices

	Percent change from 1977 to 1983
South African net producer corn prices	+128
South African corn production costs per hectare	+286
South African consumer price index	+108
U.S. corn producer prices	+47
U.S. Gulf port corn export prices	+40

Sources: U.S. Agricultural Counselor, Pretoria; National Maize Producers Organization; and the South African Department of Agriculture.

Wheat production should be up about 15 percent, and the sorghum crop, at about 500,000 tons, will be 2.5 times higher than in 1983. Cotton and sugar output are each expected to be up about 40 percent. Oilseed crops, however, do not show any overall improvement.

While poultry meat production is expected to increase again, beef output, up because of drought-induced slaughter in 1983, could decline. Cattle numbers were down 2 percent in 1982 and 3 percent in 1983. Many animals were lost because of the drought. Livestock again faces a threat from rinderpest disease in Southern Africa, and the Veterinary Research Institute has begun producing vaccines on a large scale. The process of herd rebuilding could begin in 1984, with a renewed demand for breeding stock. [Lawrence A. Witucki].

Zambia

Economic Restructuring Underway

Zambia's severe economic crisis continued in 1983 and through early 1984. Despite growing recovery in the industrial countries, the price of Zambia's main export, copper, continues weak. This has wreaked havoc on the country's terms of trade in recent years and has led to decreases in Government revenues and foreign exchange earnings. Lower investment, deferred maintenance, and heavy external borrowing have weakened the economy. Stringent reductions in imports have been necessary, partly because of the inability to obtain credit, and this has handicapped growth and reduced consumption.

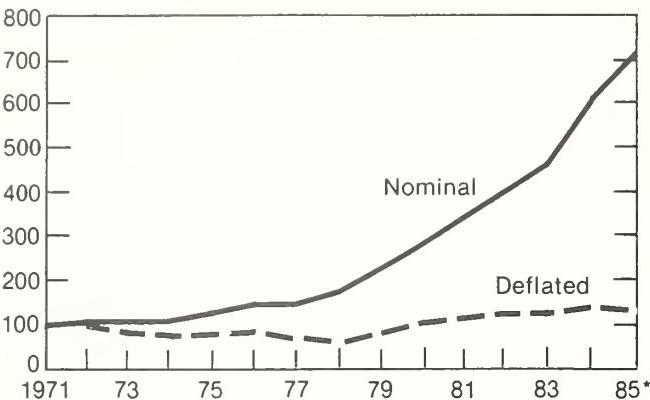
A restructuring program has been undertaken to lessen Zambia's dependence on copper, to decrease the economy's heavy reliance on imports, to reduce the capital intensity of industry, and to develop the agricultural sector. Copper output peaked in 1976, and reserves that can be economically tapped are likely to run out in the next 15 to 20 years, making change imperative. With the world copper industry currently marked by oversupply, only modest price increases are forecast. Zambia's immediate prospects remain grim while it undergoes painful adjustment policies. The nation will require continued financial assistance from the international community and further debt rescheduling.

Corn Down for Third Straight Year

Localized drought during the 1983/84 growing season again restrained output of the country's dominant crop, corn. As a result, food supplies will continue tight for the next year, and reliance on food aid will be large, given Zambia's limited commercial import capacity. Estimates of the marketed 1984 corn crop are similar to

Zambia: Corn Producer Price Indexes

1971 = 100



*Nominal prices for 1984 and 1985 have been announced by Government. Deflated prices for 1984 and 1985 are ERS forecasts.

the previous year's 540,000 tons, leaving a deficit of some 225,000 tons. In recent years, farmers have increased corn area in response to price incentives. Unfortunately, bad weather has offset expected crop production gains. Drought-related problems, along with recurrent outbreaks of foot-and-mouth disease, have also affected some cattle producers.

Production of sunflower seeds and soybeans have done somewhat better in response to favorable prices, but they were also affected by dry conditions. With new processing capacity, the long-term outlook is good for Zambia to reach self-sufficiency in edible oils, now a significant import. Seed cotton output jumped to a record 32,000 tons in 1983 and is forecast at close to 50,000 for 1984. Better prices and prompt payment by LINTCO, the cotton marketing board, have stimulated increases. However, processing capacity is small, leading to a large stockpile and restraining potential exports.

Zambia's agricultural trade pattern—imports dwarfing exports—is unlikely to change suddenly. Crops of tobacco and confectionary peanuts, formerly significant exports, have not yet rebounded to previous years' levels. Total peanut production is uncertain, since little enters official marketing channels. Zambia has achieved self-sufficiency in sugar and will have a small surplus for export to neighboring countries.

Agricultural Policy Changing

Recent increases in official producer prices have been substantial, although costs have also risen. Other policy reforms to boost economic efficiency are planned. Additional streamlining of parastatal organizations and more private sector involvement are likely. Reductions in consumer subsidies and decontrol of many prices indicate a lessening of the bias toward urban consumers.

In the short run, the commercial farming sector can respond immediately to such measures as high prices, tax breaks, and access to foreign exchange for large producers. A good rainy season should mean a sizable increase in production. However, tapping more of the country's large potential will be slower. It will take considerable time to overcome the legacy of underinvestment and to develop more effective institutions and management.

Research and extension services will have to help the neglected subsistence farmers who comprise three-quarters of the agricultural sector.

The Government estimates that only 16 percent of arable land is currently cultivated. Although it is not economical or feasible to expect large increases in the near future, better credit and more foreign exchange could bolster input use. Tractor imports in the early 1980's were less than 30 percent of those 10 years earlier, and more than 60 percent of available tractors lack parts. Equipment for animal traction has also been short. With land available, Zambia continues its interest in large-scale state farms run in partnership with private interests (local or foreign). But development so far has been limited. [Peter A. Riley]

Zimbabwe

Food Imports To Hamper Recovery

In 1983, Zimbabwe's economy suffered its worst year since independence, with preliminary estimates showing real GDP declining by 4 percent. Continued drought and weak export markets were key factors. Increasing budget deficits—related to high recurrent expenditures, outlays for drought relief, and low revenues—have forced the Government to borrow more, both domestically and abroad. The ratio of debt service to export earnings is approaching 30 percent, compared to only about 2 percent in 1980. In the face of large balance-of-payments difficulties, import allocations have decreased by as much as 60 percent in real terms in the last 2 years, handicapping industry and other sectors.

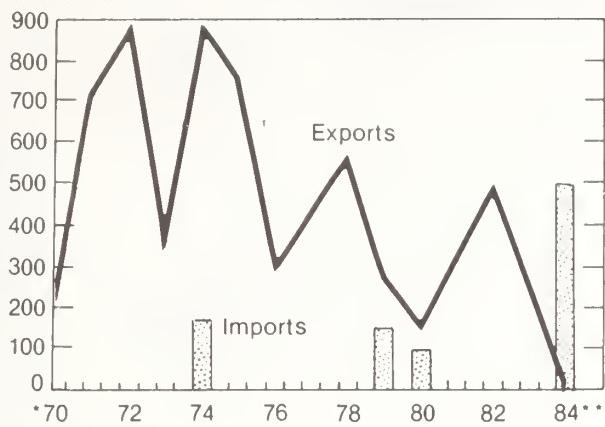
Two years of low food production and the depletion of corn stocks will force large imports in 1984/85. This dampens prospects for an export-led recovery, even though Zimbabwe's export outlook for 1984 is better than last year. In 1983, Zimbabwe's currency depreciated by more than 15 percent against the U.S. dollar, on top of a 20-percent devaluation in 1982. This bolsters the country's competitiveness, but makes imports more costly. Austerity measures in 1983 included large cuts in consumer food subsidies, which also contributed to higher inflation, particularly for the lower income population.

Another Poor Corn Crop, But Tobacco and Cotton Increase

The 1983/84 crop year was marked by prolonged mid-season dryness, followed by better late-season rains. The 1984 corn harvest is estimated at close to 1.3 million tons, up more than 20 percent from the previous year, but still at least 500,000 tons below requirements. The cattle herd has been further harmed by drought, especially in the communal lands, despite the movement of thousands of cattle. Dairy production continued to increase, however, and Zimbabwe is close to regaining self-sufficiency in dairy products. To assure adequate water for the cities, irrigated winter wheat plantings have been restricted again in 1984. A crop of only about 60,000 tons is expected, meaning a shortfall of at least 125,000 tons. In 1983, output of wheat was down to 120,000 tons, compared to an average 192,000 in the previous 3 years.

Zimbabwe Corn Trade

Thousand tons



*1970 = 70/71, etc. **Forecast

Ironically, weather conditions were close to ideal for tobacco. The flue-cured crop met the targeted level of 110,000 tons, as growers achieved record yields and excellent quality. The late rains benefited the soybean crop, estimated at 86,000 tons. Because of higher plantings and the crop's resistance to drought, cotton also did well, with seed cotton estimated at a record 240,000 tons.

Food supplies became very tight in late 1983 when the Grain Marketing Board began rationing corn to millers. The demand for marketed corn has increased dramatically over the last 2 years, owing to relief needs and the failure of many subsistence crops. Recently, refugees from Mozambique have fled into border areas of Zimbabwe, also inflating corn needs. During 1984/85, Zimbabwe—normally an exporter—will import up to 600,000 tons of corn. Although some will be covered by food aid, commercial imports will probably account for the bulk, supplied by the United States, Malawi, Argentina, and Thailand. The United States sent 30,000 tons of corn as emergency food aid to meet pressing needs before Zimbabwe's new harvest was available. Wheat imports will likely be in the range of 100,000 tons, with a greater share as aid.

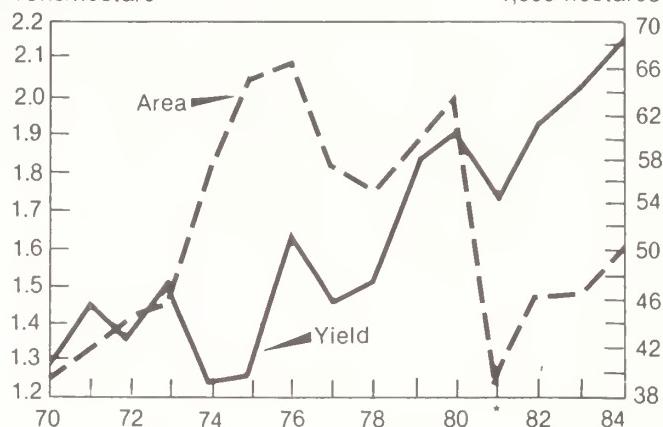
Even assuming the return of normal rainfall, full recovery from drought will be slow. Development programs will be further delayed while costly relief operations continue. In the communal areas, crop and livestock losses overshadow recent gains in social services, road building, and water development infrastructure; these measures are important but generate no direct income. The resettlement program is unlikely to meet the 1985 target level of 162,000 families; only 25 percent were reported resettled by 1984.

In 1983, the Government resumed the use of preplanting prices to encourage farmers and raised most producer prices 10 to 17 percent. Although fertilizer prices were held steady and corn was up 17 percent, large-scale commercial growers reduced corn area by 21 percent. Given the likelihood of dry weather, farmers expected a better return from other crops. For 1984, fertilizer prices will be up more than 40 percent. Thus, a major boost is needed in the price of corn, for which most fertilizer is used, to overcome the greater appeal of competing crops. In

Zimbabwe Tobacco Yield and Area

Tons/hectare

1,000 hectares



*1981, production quota begins. 1984 = Preliminary.

turn, under the current policy of reduced subsidies, higher producer prices would necessitate higher retail prices for cornmeal in 1985.

Tobacco Dominates Exports

Flue-cured tobacco accounted for over 20 percent of foreign exchange earnings in 1983. The export volume in 1984 should be similar to 1983's 89,000 tons, although the strength of the dollar is a key variable in the trade outlook. Zimbabwe's flue-cured tobacco exports compete largely with Brazil in filler grades, and with the United States in better quality leaf. Average grower prices for 1983 were \$1.84 per kilogram, 53 percent lower than the United States and 14 percent higher than Brazil.

To remain competitive, Zimbabwe must continue increasing tobacco yields, since its production costs are rising and transport from its landlocked location is expensive. The industry has expanded cautiously—below its physical capacity—since independence in 1980. With stocks at their lowest level in many years, the production target for the 1985 crop will again be increased if current sales go well.

Currently, there is actually a glut of beef in Zimbabwe. The drought raised slaughter, while the recession and reduced subsidies have curtailed demand. The surplus will allow more beef exports, although Zimbabwe is still waiting for the go-ahead from the EC to use its 8,100-ton quota. The Cold Storage Commission, now modernizing and expanding its beef processing capacity, is holding animals for restocking in 1985.

More cotton will be available for export in 1984, while stronger world prices for tea and coffee should improve export earnings. Like tobacco, all these crops are labor-intensive enterprises that are sensitive to wage levels, and the Government held wage increases for farm labor in 1983 to 10 percent. Sugar exports could be down because of shortages of irrigation water. Although able to meet previous commitments, Zimbabwe halted corn exports by mid-1983. The resumption of corn exports in 1985 is uncertain; even with a good crop, much of the surplus would be absorbed in rebuilding stocks. [Peter A. Riley]

Factors in Food Availability in Selected African Countries¹

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Abstract: In 11 African countries, declining per capita food production has not been offset by increased imports. The impact of weather variation and drought has been severe, reducing annual production as much as 50 percent. In the short run, price policy reform and increasing export earnings will lead to larger improvements in consumption in those countries that have had better production performances.

Keywords: Food availability, drought, export earnings, pricing policy, Sub-Saharan.

This paper examines problems in increasing food availability in 11 African countries that have experienced food emergencies over the past decade: Mali, Niger, and Senegal (in West Africa); Ethiopia, Kenya, Sudan, and Somalia (East); Lesotho, Mozambique, Zambia, and Zimbabwe (Southern).² It examines the impact of weather variability, price policy, and foreign exchange earnings on food availability during the period from 1966-68 to 1980-82.

Most of the 11 countries face problems common to much of Sub-Saharan Africa. Their agricultural performance has been characterized by declining per capita production (except Sudan and Zimbabwe), stagnating agricultural exports, increasing imports of food grains, and a shift toward consumption of nontraditional food items, mainly wheat and rice (table A). The countries show an 80- to 90-percent correlation between food production and consumption. Because agriculture is the major source of both food and income for a large part of the population, any decline in food production means reduction in real income for many of the poorest people.

The tragedy of this situation is that the effective demand for food decreases only through nutritional sacrifices. A small shortfall in production can cause a national disaster. The main questions, therefore, are:

- What causes such instability?
- Why have imports not been used more extensively?
- What are the implications for future consumption?

Sources of Instability In Production

Drought and great variability in rainfall have played a

major role in the poor performance of agriculture. The reason is that growth in production has largely been based on expansion of area, and irrigation is very limited. Expansion has meant moving into marginal lands with lower productivity and uncertain rainfall. Of all 11 countries, only Zimbabwe, Lesotho, and Kenya had yield increases during 1966-1983. The average yield of most major crops in these countries is very low by world standards.

Most African governments intervene heavily in agriculture. Typical intervention includes setting producer prices, providing inputs, and managing marketing. Government policies and inefficient administrative systems have often compounded weather problems in reducing farm incomes.

Although African farmers retain some or most of their production for home consumption, most react to market prices. Nominal producer prices rose during the period of 1966-83 for practically all food crops, but real producer prices declined. During the 1970's, there was little correlation between world and domestic producer prices for most commodities. In recent years, government-set domestic prices have tended to be higher than world prices. But, this overstates government protection, since world prices are not adjusted for transportation costs and effective exchange rates. Real producer prices actually have been rather low, as governments have tried to supply their populations with staples at low consumer prices.

However, the pricing policies have often backfired. In many instances, low prices have led producers to sell part of their crops in illegal markets for much higher prices. In general, the price policies have failed to stabilize retail food prices and have discouraged producers.

Trade and exchange rate policies have been additional obstacles to greater food production. In almost all of these countries, local currencies have been overvalued. In Sudan, for example, the official exchange rate in 1981 overvalued the local currency by almost 100 percent. In 1982, devaluation reduced the difference between the official and the black market exchange rate to about 30 percent.

¹This article summarizes preliminary results of research currently underway.

²The analysis focuses on availability of major food items, mainly cereals, defined as production plus net imports. African data in general, and food production data in particular, are weak, because the subsistence sector comprises a large part of the economy. Therefore, findings should be used with caution.

Table A—Basic indicators of food-sector performance

Country	Growth rates of total cereals from 1966-68 to 1980-82				Population growth rate	Coefficient of variation	
	Production	Comm. imports	Food aid	Consumption		Production	Consumption
<i>Percent</i>							
Ethiopia	1.85	10.68	1.9	1.98	2.5	10.4	10.6
Kenya	1.20	9.02	4.5	2.66	3.8	10.3	9.8
Lesotho	-4.48	13.26	7.0	3.73	2.3	22.4	18.7
Mali	-1.12	9.85	-5.1	1.36	2.5	13.0	12.1
Mozambique	.21	11.32	5.3	1.32	3.2	14.2	13.3
Niger	2.44	4.50	-22.5	2.64	2.7	19.2	16.8
Senegal	.24	5.27	2.8	1.70	2.8	24.1	16.4
Somalia	.25	4.23	36.1	3.79	3.5	12.9	21.1
Sudan	5.17	.94	16.1	5.68	2.8	16.0	15.6
Zambia	1.01	7.54	45.4	2.55	3.0	13.1	12.3
Zimbabwe	2.95	-8.80	NA	3.95	3.4	19.4	10.0

NA = Not applicable

The overvalued exchange rates have held down prices received for export crops. In agricultural export countries such as Sudan, Zimbabwe, and Kenya, producers have received 30 to 40 percent less than the real value of their crops, if their exchange rates were adjusted to free market levels. The combination of overvalued exchange rates and almost no duty on food imports has increased the countries' import dependency and discouraged domestic production.

In general, governments have relied on import restrictions rather than devaluations to prevent large volumes of nonfood imports. But, the restrictions have decreased available nonfood consumer goods. This has been an important disincentive for farmers to increase their production for market.

Financial Conditions and Import Ability

For all of these countries, deterioration of the domestic economies, combined with global factors, has led to financial crises (table B). The balance-of-payments account for the countries as a group changed from a surplus of \$179 million in 1970 to a deficit of \$882 million in 1982. The nations' finances worsened at an unprecedented pace in the 1970's, partly because of external factors. Imported fuel prices increased 400 percent between 1973 and 1974 alone, after an annual average climb of 24 percent during 1970-73. Rising prices of manufactured goods and fertilizers also increased the import bill.

During the 1970's, the volume of exports declined, mainly because of the world recession. As food production fell, a large part of the dwindling supply of hard currency was used to purchase food. Increasing migration to urban areas added to the growing demand for imported food, and the volume of food imports increased sharply. In Ethiopia, Lesotho, and Mozambique, food imports since 1966 have grown at annual average rates of 11, 14, and 16 percent, respectively. In Zambia, Mali, and Mozambique, food imports have largely replaced imports of other commodities. Since imports of nonessentials were already restricted in most countries, any new import limitations have meant reductions in imports of basic goods and raw materials.

Table B—Export earnings, imports, debt service, and international reserves

Country	Annual growth rate 1966-81		Debt service to exports 1982	Imports covered by gross intl. reserves, 1982
	Exports	Imports		
<i>Percent</i>				
Ethiopia	9.42	11.00	22	95
Kenya	10.89	13.78	34	42
Lesotho	15.55	18.15	27	40
Mali	15.66	14.80	21	10
Mozambique	12.90	14.30	NA	NA
Niger	18.60	18.90	29	12
Senegal	8.27	12.05	43	2
Somalia	12.12	16.76	41	25
Sudan	7.42	11.82	171	10
Zambia	3.89	5.87	34	13
Zimbabwe	11.56	11.64	11	33

¹Incomplete series only covers 1966-76.

NA = Not available.

Source: International Financial Statistics, IMF.

Stagnating exports and rapid import growth led to balance-of-payment deficits, largely financed by external borrowing and depletion of foreign exchange reserves. As interest rates on loans increased, debt-service burdens grew. In Sudan, for example, debt-service payments came to 171 percent of 1982 export earnings. The increase in the amount of debt in the 1970's caused public lenders to shorten terms and harden conditions for borrowing. The harsher conditions led to a shift in borrowing from public to private sources. Private borrowing, even with higher rates, was more attractive because no policy reform conditions were attached.

Analysis of Consumption Variation

Against this background of financial and food crises, food consumption variations were studied in relation to several factors. Consumption was examined for correlations with producer prices, imports, foreign exchange availability, food aid, and world prices, over the period 1966 to 1983. Output was assumed to be a function of the previous year's production, the previous price, and a dummy variable to represent drought years (table C). Commercial imports were calculated as a function of domestic production, foreign exchange earnings, world prices, and food aid. The key findings are as follows:

Table C—Parameters affecting food availability

Country	Change in prod. due to 1-percent change in price	Expected shortfall due to drought	Probability of drought in a given year	Change in imports due to 1-percent change in		
				Production	For. exch. earnings	Food aid
<i>Percent</i>						
Ethiopia	.30-.45	10-35	30	-1.15	1.70	-.61
Kenya	.40-.80	12-45	30	-1.39	1.22	-.02
Lesotho	.10-.17	23-44	35	-.50	.05	-.15
Mali	.19-.59	14-30	40	-2.27	1.26	-.01
Mozambique	.10-.17	20-50	35	-.50	.50	-.15
Niger	.64-.81	20-26	35	-2.06	.66	-.01
Senegal	.25-.59	13-41	40	-.10	.04	-.02
Somalia	.06-.20	13-40	35	-.82	.82	-.07
Sudan	.11-.20	20-34	25	-2.30	1.04	-.04
Zambia	.40-.88	13-46	35	-.87	1.44	-.02
Zimbabwe	.61-.99	10-47	35	-.85	.72	NA

NA = Not applicable.

- The probability of drought is about 35 percent each year, or a drought almost every 3 years, at least in one part or another of the Sub-Saharan region. Food production drops due to drought average about 30 percent, but they can be as high as 50 percent. The agricultural impact of drought varies with the season and the area affected.
- Increasing producer prices raises food supplies. Supply increases vary by crops and countries. This indicates that supply does respond to price changes, and policies which lead to a decline in prices are likely to have a negative impact on production over time. The countries with the higher growth rates in agricultural production (Zimbabwe, Zambia, Kenya, and Niger) show higher response to increasing prices. The countries with lower price responses tend to have weaker market infrastructure which erodes the real impact of prices on production.
- Food aid does not reduce commercial imports much and is not a strong substitute for imports, except in Ethiopia.
- Import adjustments do not really make up for production variations. For example, a 1-percent decline in Kenya's production would reduce food availability by 30,000 tons, given total production of 3 million tons, while the import response of 1.4 percent would only compensate by 2,800 tons. In countries such as Mozambique and Lesotho, with chronic food problems, imports are not very sensitive to production variations. These countries are dependent on imports for more than 50 percent of their food needs. Historically, variations in their production levels have hardly affected import trends.
- Import volume adjustment due to changes in foreign exchange earnings have been low in countries such as Senegal, Lesotho, and Mozambique, with chronic food problems and high import dependencies. On the other hand, in Zambia, Kenya, Sudan, Mali, and Ethiopia, a 1-percent increase in foreign exchange earnings has led to more than a 1-percent increase in the volume of imports. This means that even though food self-sufficiency in the latter group of countries is high, removing financial constraints will lead to an increase in food imports.

- World prices do not significantly affect import levels in these 11 countries. The countries tend to import more according to need, either emergency or chronic, so their purchases are made almost irrespective of world price variations.

Expected Consumption Under Alternative Conditions

Given the relationships revealed by analyzing past food consumption, what is the likely future of consumption in these 11 countries? To answer this question, the historical trend was projected into the future, providing the basic scenario. Then, the effects of several developments were studied for a projection period of 3 years. The developments considered were:

- (1) if a drought led to a 20-percent drop in food production (20 percent is actually less than the average historical shortfall);
- (2) if foreign exchange earnings grew 10 percent annually;
- (3) if policy reforms raised real producer prices 5 percent each year. Per capita food aid was assumed to be the same as during 1981-83, that is increasing 3 percent per year.

The results of the study indicate that food availability in the short run would be highly sensitive to drought. In all countries, a 20-percent reduction in agricultural production would severely decrease available food. Even with a sizable import response, consumption would decline significantly (table D). The impact of drought would be more profound in countries with a history of 75-percent food self-sufficiency or more. For example, in Zimbabwe, Niger, and Ethiopia, commercial imports would not compensate for a production shortfall of 20 percent by more than 2 percent. These countries have limited capacity to import and they cannot adjust quickly.

Improved finances would mean an increase in food imports. However, in contrast to the severe changes brought by drought, a 10-percent increase in foreign exchange earnings would improve food consumption only moderately, about 4 percent on average. In Zambia and

Table D—Expected food availability after 3 years, under alternative conditions

Country	Food avail. based on historical trends					Change in food availability under different conditions		
	Prod- duction	Food aid	Imports	Total supply	Food self- sufficiency	5-percent increase in producer price	10-percent in- crease in for. exch. earnings	20-percent prod. drop due to drought
	1,000 tons					Percent		
Ethiopia	5,507	25	183	5,715	96	105	102	82
Kenya	2,722	138	471	3,331	82	106	106	88
Mali	1,026	33	75	1,134	90	101	103	86
Niger	1,691	10	40	1,741	97	111	101	82
Sudan	3,569	194	305	4,068	88	103	103	87
Zambia	1,210	126	244	1,560	78	106	108	87
Zimbabwe	2,814	NA	35	2,849	99	112	101	81
Lesotho	203	30	261	493	41	101	101	89
Mozambique	454	30	476	960	47	101	101	96
Senegal	749	51	490	1,290	58	104	105	89
Somalia	259	189	285	733	35	100	111	98

NA = Not applicable.

Somalia, though, this improvement in foreign exchange earnings could raise consumption as much as 8 and 11 percent respectively.

Finally, if these nations reformed policies significantly and raised real producer prices 5 percent, food availabil-

ty would improve, especially in countries with a better food-sector performance. Price increases would be effective even in the short run. In Zimbabwe, Niger, Kenya, and Zambia, production would increase between 6 and 12 percent.

Changing Rice Policy in West Africa

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Abstract: Self-sufficiency in rice production is a stated goal of the governments of Ivory Coast, Liberia, Senegal, and Sierra Leone. Imports have increased to meet demand fueled by declining real retail prices, and per capita consumption has increased as rice has become cheaper than other staple foods. Recent policy instruments to restrict consumption and augment production have turned to the price mechanism. Improved marketing infrastructure and agricultural research also play a role in decreasing dependence on imports.

Keywords: Rice, policy, retail price, producer price, subsidies, self-sufficiency, West Africa.

In West Africa, the rice situation has been marked by rapid growth of imports, rising per capita consumption, and population growth greater than production increases. Rice is the dietary staple in Sierra Leone and Liberia and a major grain in Senegal and the Ivory Coast. Common trends exist in the policies of these four countries. However, varied climates and economic constraints cause differences in the countries' policy instruments and the policies' effectiveness.

In general, the governments control imports to ensure a reliable domestic supply and maintain stable retail prices. Low world rice prices keep domestic retail prices low at no cost to the governments, but they reduce incentives to producers. Governments have recently attempted to boost rice production by raising producer prices and subsidizing land development and inputs. At the same

time, they have tried to shift consumption to other domestic cereals and root crops, primarily through adjusting prices.

Consumption Policies

Real Retail Prices Decline

All four governments have recently raised retail rice prices in an attempt to reduce per capita consumption. Even with the new prices, though, only in Senegal do real prices come close to being as high as in 1970. Over the last decade, retail rice prices have increased less than other foods. This factor, plus rice's ease of preparation, has made it the first choice of consumers.

Domestic retail prices are influenced by world prices, but world price changes are not passed on directly to consu-

mers. Stable nominal prices are maintained by governments through use of a variable levy that changes according to the difference (less shipping, storage, and marketing costs) between the world price and the domestic retail price. In most years, the levy functions as a tax and a source of revenue. However, high world prices in 1974 and 1975 forced governments to subsidize imports to maintain consumer prices.

In Senegal, retail rice prices and historical dietary patterns have pushed annual per capita consumption from 45 to 60 kilograms in recent years. National consumption figures mask differences between the city and rural areas; in the latter, millet still dominates. Rice sells for 105 CFA a kilo, in contrast to 135-165 for millet, so the differential favors rice. Millet consumers switch to rice when they move to the city and must purchase their food; therefore, urbanization helps raise per capita rice consumption. Tieboudienne, an oily rice and fish dish, serves as the staple food in urban areas despite the lack of suitable land for rice production. Some of this reflects Senegal's colonial history, when rice was introduced as a wage good.

Some Government policies have tried to encourage consumption of traditional cereals. Research to develop convenience foods using millet and corn receives official support. In 1975, a law was passed requiring 15 percent millet content in bread, but domestic supplies proved insufficient and imports were necessary to meet the requirement. The law remains and a couple of bakeries continue to mix in millet, but most bread in Dakar is 100 percent wheat.

The Senegalese Government espouses a policy of stable retail prices. Low-quality, broken rice composes 90 percent of imports, and Thailand is the major supplier. Current policy calls for imports to reflect their true economic cost. Consequently, a 15-percent tariff was recently imposed on imports to compensate for the scarcity of foreign exchange. The retail price of rice jumped from 80 to 105 CFA, the first increase in 5 years.

Domestic availability is assured by the Caisse de Péréquation et de Stabilization des Prix (CPSP), or Price Stabilization Fund, which each month imports between

25,000 and 30,000 tons of rice. The rice is sold to wholesalers holding quotas. To give private importers experience in rice trade, an October 1983 decree charged selected private importers with the handling and transport of imports on behalf of the CPSP. The CPSP subsidizes quota holders in distant regions up to 2 CFA a kilogram for transportation.

In the Ivory Coast, rising per capita rice consumption closely follows real retail prices. When real prices soared between 1974 and 1976, price-sensitive consumers switched from rice and per capita consumption fell from 46 to 35 kilograms per year. But, demand recovered as real prices began declining in 1977, and per capita consumption now stands at approximately 70 kilograms. Consumption of rice is higher in cities, which also absorb most of the imports. Corn, millet, and root crops are in short supply, and any switch out of rice will require greater supplies of alternative staples.

Rice prices play a political role in Liberia. The downfall of the Tolbert regime in 1980 was linked to the 1979 rice riots, which occurred in response to rumors of a price increase. At the time, consumers benefited from a subsidy of \$90 per ton, which the Doe Government was obliged to continue for a time. In September 1981, though, retail prices were raised to current levels. Presently, Liberia imposes a 20-percent tariff, which equalizes the effect of the currency's overvaluation on the cost of rice imports, and no effective subsidy exists.

In 1981, rice scarcity and retail price increases caused riots in Sierra Leone. Until 1983, rice imports and the marketing of domestic rice were the exclusive responsibility of the Sierra Leone Produce Marketing Board (SLPMB). The overvalued leone subsidized consumer prices, and the SLPMB incurred losses as domestic retail prices lagged behind the rising cost of importing rice at world prices, in hard currency. In 1983, Sierra Leone devalued its currency, bringing Leone prices more in line with world prices. The move increased the retail price of rice 100 percent. At the same time, rice sales were privatized and import licenses issued to private traders. In the future, the SLPMB will limit its role to importing 25,000 tons for the purpose of creating a strategic stock.

Table E—Real retail rice prices¹

Year	Ivory Coast		Senegal		Sierra Leone		Liberia	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
CFA/kg								
1970	55	55.0	37.0	37.0	0.25	0.25	30.8	30.8
71	50	50.1	37.0	34.9	0.20	0.21	30.8	34.0
72	50	50.7	37.0	32.7	0.16	0.15	26.4	29.1
73	63	54.0	57.0	43.1	0.20	0.17	46.2	39.1
74	116	84.6	60.0	39.4	0.41	0.31	52.8	35.4
75	108	71.4	100.0	46.9	0.45	0.27	55.0	31.9
76	100	61.6	90.0	42.9	0.44	0.23	52.8	30.8
77	100	44.0	80.0	34.7	0.48	0.23	50.6	26.9
78	100	39.5	80.0	32.3	0.48	0.22	50.6	24.2
79	100	32.5	80.0	30.2	0.51	0.21	44.0	18.8
80	110	30.0	80.0	27.5	0.67	0.22	44.0	17.2
81	130	33.7	80.0	27.3	0.67	0.20	52.8	19.9
82	130	32.1	105.0	29.7	0.84	0.19	52.8	19.0
83	150	35.8	130.0	35.4	1.10	0.18	52.8	18.8

¹Deflated by food price indices; 1970=100.

Table F—Rice production, imports, and total availability

Year	Ivory Coast	Senegal	Sierra Leone	Liberia
1,000 tons				
Annual prod.				
Av. 70-75	183	62	280	145
Av. 76-80	229	67	302	166
1981	179	80	275	174
1982	184	67	275	180
1983	198	50	304	193
Annual imports				
Av. 70-75	89	167	29	43
Av. 76-80	150	271	35	62
1981	306	327	41	86
1982	357	321	46	104
1983	434	330	70	110
1984*	400	400	51	62
Annual total avail.				
Av. 71-75	249	233	302	185
Av. 76-80	390	346	339	227
1981	541	370	333	247
1982	536	401	321	278
1983	618	397	345	290
1984*	598	450	355	255

*Forecast

Source: WARDA Rice Yearbooks, ERS.

In April 1984, retail prices were raised an additional 28 percent despite the potential political consequences. Recent shortages have led to a widening gap between official and actual market prices. The Government continues to allocate scarce foreign exchange to rice imports in an effort to stabilize prices.

Production Policies

Governments Strive for Self-Sufficiency

All four governments make rice self-sufficiency a priority in national and agricultural development plans. One reason is food security. A second reason is that imports require scarce foreign exchange, and increasing production would reduce this drain on the national economies. Finally, income distribution and rural-income support policies lead governments to promote rice production. Farm incomes remain below those in urban areas, and land suitable for rice production is more evenly distributed than land for other cash crops, such as coffee and cocoa. However, increasing production requires price or input subsidies, since domestic costs of production currently exceed the world rice price.

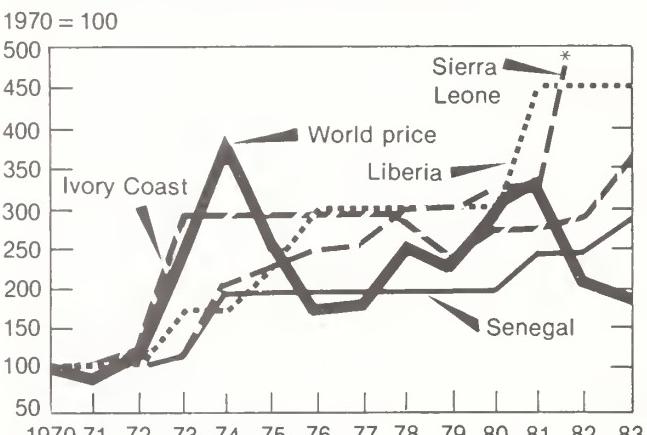
High labor costs relative to Asian producers account for the largest part of the steep costs of production in West Africa. Rice is grown under swamp and upland conditions, and both methods demand a greater labor input than other crops. For the return to rice to be competitive with other crops, the producer price would have to be high compared to prices of cash crops. Also affecting the return to rice are the low yields obtained in West Africa—only 44 percent of the world average and 72 percent of the average African yield.

Most high-yielding rice varieties and improved technologies were developed in Asia, where labor costs are low and land serves as the major constraint. These improvements actually demand increased labor. They also require fertilizer, which must be imported in West Africa. The West African Rice Development Association (WARDA), located in Liberia, is a regional organization devoted to researching production improvements feasible in the region. The main focus is agronomic research to breed high-yielding varieties. Research into cultivation methods to reduce labor has been limited. Research support is a policy initiative that should improve the return to rice cultivation in the long run.

Irrigation, which would improve yields and limit the risk of rainfall variability, has had only a limited impact, because land development costs largely exceed the expected rate of return for rice production. During the seventies and early eighties, costly projects involving large-scale irrigation and mechanized cultivation (often financed by foreign donors) failed to boost production substantially. Recently, emphasis has switched to increasing production among small farmers. Integrated agricultural development projects furnish subsidized fertilizer, improved seed, and extension services to a specific geographic region. Farmers also have access to subsidized credit for land development. These projects can be targeted at specific low-income areas. However, because the area covered is small and repayment rates on loans are low, these schemes have only limited impact.

Stable prices offering profitable returns to rice cultivation are necessary before farmers can apply new technologies. In all four countries, pricing policies have been reviewed and producer prices have been raised. Official producer prices are also a benchmark for prices paid to farmers by private traders. Government marketing services—constrained by limited funds, personnel, and facilities—actually purchase only a small percentage of marketed output. They procure mainly after the harvest, when market prices are low, and seldom at other times during the marketing year. In Senegal, official purchases are limited to state-sponsored projects where farmers are obligated to deliver rice to repay input costs. Official purchases in the Ivory Coast represent 25 percent of marketed rice and only 4 percent of total output.

Nominal Producer Price Index for Rice



*Sierra Leone, 1982 = 600; 1983 = 900.

Cash Crop Policies Successful

Farmers are price responsive, as successful policies to increase coffee, cocoa, cotton, and peanut production demonstrate. Instruments used include high relative prices, guaranteed purchases from farmers, and introduction of modern production packages. However, farmers have not traditionally considered rice a cash crop, and production has remained largely for subsistence consumption. Given the limits on a farmer's time, competitive rice prices and guaranteed marketing are prerequisites to growth in marketed production.

Liberia's 50-percent increase in producer prices in 1981 raised output significantly; record production resulted from increased plantings and favorable weather. Rice sales to the Liberian Produce Marketing Corporation (LPMC) continue to grow, although they represent only about 3 percent of domestic production. However, the LPMC stopped purchases of local rice in November 1983 because of a lack of storage space. If farmers are left holding large stocks they will not have the incentive to plant rice for surplus production in the future. In addition, the higher price reversed the direction of cross-border trade with Sierra Leone and Guinea, and rice now flows into Liberia to take advantage of the price and the dollar currency. In 1984, imports are expected to decline to 60,000 tons, compared to 95,000 in 1983, as a result of improved domestic availability.

The experience of the Ivory Coast in the mid-seventies, when producer prices were raised to stimulate production and imports were banned, demonstrates that producer prices cannot be formulated in isolation. Production increased 50 percent between 1973 and 1975, with the result that the Government accumulated large, expensive-to-maintain stocks, which could not be sold at the high retail price. Self-sufficiency also terminated Government revenues from imports: the revenues had financed producer subsidies. To liquidate stocks, consumer prices were lowered, but producer prices were maintained. These policies created a financial crisis for the state rice development company, which was dissolved in 1977.

Subsequently, the Government abandoned price as a major policy instrument and relied on subsidizing inputs to increase production. Since then, production has stagnated and imports have almost tripled from their 1976-1980 average. In an effort to expand production again, the Government instituted a 23-percent increase in producer prices to accompany the recent rise in retail prices. Producer prices are subsidized through milling and transportation; state-owned mills receive a subsidy of 53 CFA per kilo to cover the difference between the cost of purchasing and processing paddy rice. However, farmers have no guarantee that all rice will be purchased at the official price, so it is doubtful that the higher producer prices will raise production.

The exchange rate policy is the most influential instrument in establishing agricultural prices in Sierra Leone. Between 1974 and 1980, the paddy producer price was held above the world price, and cheaper imports were not allowed to dampen the domestic market. The artificially low value of foreign exchange depressed domestic prices from 1980 to 1983. The 1983 devaluation raised both

retail and producer prices. Regular adjustments in producer prices are necessary to reflect changes in currency value.

Price Policy Cannot Be Considered Alone

While higher prices stimulate production and temper rice demand, policymakers need to consider other factors. Improving marketing infrastructure is necessary to increase domestic availability. Also, price policy favors rural incomes, but does not address rural regional differences; those farmers who benefit the most live in forest regions, where incomes are already higher, not in the poorer savannah areas. On the consumption side, the urban poor suffer under higher retail rice prices, and in Liberia and Sierra Leone this portends political problems. But, any switch from rice by city dwellers assumes increased availability of other foods.

Pricing policies alone cannot solve the problem of burdensome rice imports in West Africa. However, declining real retail prices and low, neglected producer prices encourage consumption and discourage production. Consumers have proved to be price sensitive in switching to relatively cheaper rice. Assuming that other domestic foods were available, consumers would switch out of rice if price ratios changed. Cash crop promotion has demonstrated that stable prices and a guaranteed purchasing agent expand production. Fixing higher producer and retail prices needs to be followed by a regular review to balance world prices, foreign exchange availability, and the costs of production.

Table G—Rice policy instruments

Policy	Ivory Senegal	Sierra Coast	Leone	Liberia
Consumption				
Fixed retail price	X	X	X	X
Price increase	*	*	*	X
Implicit exchange rate subsidy	0	0	X	X
Distribution subsidy	X	X	0	0
Imports				
Government marketing	*	*	*	X
Import licenses to private traders	*	*	*	X
Fixed tariff	*	0	0	X
Variable duty	X	X	0	0
Government-to-Government purchases	X	*	0	0
Production				
Price subsidy	0	0	0	X
Price increase	*	*	*	X
Milling subsidy	0	X	0	0
Modern inputs subsidy (mechanization, fertilizer, improved seed)	X	X	X	X
Land development subsidy	X	X	X	X
Integrated rural development projects with rice components	X	X	X	X

0 = No policy.

X = Existing policy.

* = Recent policy change.

**Table 1.—Value and volume of U.S. agricultural exports to Sub-Saharan Africa,
total and for selected items, 1982 and 1983**

Destination	Total		Wheat and wheat flour		Corn		Rice		Inedible tallow		Soybean oil	
	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983
<i>Thousand dollars</i>												
Value												
Angola	16,613	12,433	339	0	2,514	0	151	221	1,240	1,991	381	189
Benin	15,876	6,401	1,891	5	0	0	6,958	323	0	0	330	214
Botswana	2,020	2,758	0	0	0	0	0	0	0	0	1,288	60
Burundi	1,993	1,149	0	0	0	0	0	0	0	0	693	186
Cameroon	7,230	5,486	0	80	0	0	248	17	798	1,249	474	90
CAR	413	476	0	0	0	0	0	0	0	0	0	0
Chad	1,771	2,409	0	0	0	422	0	0	0	0	275	351
Congo (Brazzavil)	4,816	631	28	0	0	0	2,851	9	0	0	16	0
Djibouti	4,316	2,171	0	0	0	0	3,590	833	0	0	339	434
Ethiopia	3,463	7,011	0	0	0	76	0	0	0	0	637	1,504
Gabon	2,366	1,789	51	0	0	0	2,231	1,496	2	0	0	0
Gambia	869	937	378	0	0	0	109	226	0	0	68	212
Ghana	18,881	23,498	2,970	50	1,404	9,642	5,150	332	0	1,443	1,147	1,712
Guinea	7,818	7,591	0	0	25	12	6,645	5,842	0	0	50	231
Ivory Coast	16,406	5,215	86	1	28	8	10,154	1,576	0	0	289	548
Kenya	21,766	24,886	10,423	12,613	0	0	5,211	4,863	508	957	994	1,783
Lesotho	4,900	6,249	548	424	0	0	0	13	0	0	810	1,024
Liberia	35,945	34,445	1,111	1,363	146	15	29,669	28,005	0	127	122	77
Madagascar	12,410	9,412	0	0	0	0	10,887	7,282	442	0	226	1,316
Malawi	21	1,157	0	0	0	0	0	0	0	1,147	0	0
Mali	701	2,916	0	0	0	0	10	1,462	0	0	0	0
Mauritania	2,736	8,360	733	4,520	0	0	23	32	0	0	171	593
Mauritius	10,735	6,402	1,298	993	0	0	3,650	2,364	0	0	4,831	2,191
Mozambique	2,760	9,736	810	1,337	0	3,384	1,401	4,345	0	0	76	83
Niger	5,060	1,528	0	102	0	10	30	0	0	0	0	0
Nigeria	488,788	334,433	235,318	214,893	35,799	5,497	149,839	56,944	14,839	13,859	0	346
Rwanda	1,389	3,074	35	1,115	0	0	7	1,099	0	0	552	204
Senegal	12,216	12,527	60	37	0	0	7,494	3,648	0	0	309	882
Sierra Leone	6,046	5,888	1,119	565	0	184	2,977	2,998	0	0	208	682
Somalia	22,341	23,662	4,100	4,818	1,856	3,244	5,725	5,386	0	0	7,386	7,494
South Africa	128,079	248,117	16,844	328	17	126,508	48,816	56,624	9,887	8,446	869	627
Sudan	83,633	59,260	68,710	49,638	13	0	1,505	185	11,109	5,724	0	0
Tanzania	11,683	11,213	0	3,252	3,687	0	3,624	5,015	0	139	1,765	1,159
Togo	10,449	7,259	4,940	2,549	0	102	1,359	648	0	0	112	1,023
Uganda	227	37	0	0	0	0	106	37	0	0	0	0
Upper Volta	6,678	9,570	0	77	0	0	42	17	0	0	1,377	2,951
Zaire	27,129	18,005	22,561	16,301	0	8	2,193	188	0	0	0	0
Zambia	6,866	13,515	3,100	6,169	0	0	2,004	1,819	428	0	798	5,229
Zimbabwe	477	4,743	0	1,641	0	0	0	0	0	282	0	2,456
Total ¹	1,007,886	937,349	377,453	322,871	45,489	149,112	314,659	193,849	39,253	35,364	26,593	35,851
<i>Metric tons</i>												
Volume												
Angola	1,338	0	15,989	0	243	497	2,737	4,478	520	258		
Benin	14,176	20	0	0	15,595	350	0	0	447	266		
Botswana	0	0	0	0	0	0	0	0	1,688	81		
Burundi	0	0	0	0	0	0	0	0	972	222		
Cameroon	0	499	0	0	3,193	48	2,020	3,010	640	91		
Chad	0	0	0	3,000	0	0	0	0	380	353		
Congo (Brazzaville)	125	0	0	0	8,827	18	0	0	22	0		
Djibouti	0	0	0	0	8,582	2,246	0	0	465	591		
Ethiopia	0	0	0	765	0	0	0	0	903	1,772		
Gabon	46	0	0	0	4,824	2,949	3	0	0	0		
Gambia	1,414	0	0	0	400	723	0	0	91	254		
Ghana	20,000	233	9,620	66,189	17,453	732	0	3,461	1,438	2,109		
Guinea	0	0	167	92	19,682	18,726	0	0	69	241		
Ivory Coast	4,103	2	144	95	29,647	2,919	0	0	386	534		
Kenya	68,623	80,836	0	0	15,324	14,193	1,143	2,090	1,492	1,960		
Lesotho	2,490	12,146	0	0	0	59	0	0	1,135	1,337		
Liberia	6,294	8,412	1,000	103	84,802	80,873	0	275	201	79		
Madagascar	0	0	0	0	37,634	24,472	999	0	309	1,954		
Malawi	0	0	0	0	0	0	0	2,706	0	0		
Mali	0	0	0	0	1,515	11,375	0	0	0	0		
Mauritania	5,000	31,362	0	0	35	100	0	0	230	926		
Mauritius	5,759	3,782	0	0	11,965	7,870	0	0	10,452	5,249		
Mozambique	5,000	8,002	0	22,551	4,990	14,930	0	0	105	99		
Niger	0	623	0	0	34	0	0	0	0	0		
Nigeria	1,423,770	1,316,491	288,986	39,577	343,000	124,168	32,902	30,897	0	485		
Rwanda	136	5,300	0	0	7	1,099	0	0	710	290		
Senegal	258	156	0	0	25,067	11,293	0	0	442	966		
Sierra Leone	6,499	3,212	0	1,002	10,251	10,012	0	0	284	856		
Somalia	23,341	23,662	12,999	23,519	19,141	18,807	0	0	11,280	13,003		
South Africa	102,977	1,292	88	868,226	120,275	143,032	22,468	21,033	1,545	685		
Sudan	401,030	296,815	68	0	4,949	600	21,693	14,173	0	0		
Tanzania	0	17,080	30,889	0	12,889	15,361	0	70	2,950	2,450		
Togo	32,432	15,926	0	773	2,208	1,295	0	0	150	1,308		
Uganda	0	0	0	0	370	0	0	0	0	0		
Upper Volta	0	313	0	0	51	16	0	0	1,930	3,224		
Zaire	129,674	95,208	0	45	6,087	594	0	0	0	0		
Zambia	20,291	36,596	0	0	6,444	6,286	1,181	0	1,663	10,876		
Zimbabwe	0	10,200	0	0	0	0	0	600	0	5,000		
Total	2,274,776	1,968,168	359,950	1,025,937	815,485	515,643	85,146	82,793	42,899	57,519		

¹All U.S. exports (agricultural and nonagricultural) to Sub-Saharan Africa totaled \$5 415 billion in 1982 and \$4 343 billion in 1983.

Source Bureau of the Census

Table 2.—Value and volume of U.S. agricultural imports from Sub-Saharan Africa,
total and for selected items, 1982 and 1983

Source	Total agricultural		Coffee		Sugar		Cocoa and prods.		Tea		Tobacco	
	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983
Thousand dollars												
Value												
Angola	7,635	4,018	7,635	4,010	0	0	0	0	0	0	0	0
Benin	1,305	0	1,305	0	0	0	0	0	0	0	0	0
Botswana	35	103	0	0	0	0	0	0	0	0	0	0
Burundi	41,294	2,748	41,279	2,748	0	0	0	0	0	0	0	0
Cameroon	37,812	28,317	30,939	20,451	0	0	1,462	1,759	0	0	5,411	6,107
CAR	0	0	0	0	0	0	0	0	0	0	131	247
Comoros	5,596	3,854	44	0	0	0	0	0	0	0	0	0
Congo (Brazzaville)	0	0	0	0	0	0	0	0	0	0	0	0
Ethiopia	101,794	86,549	95,499	79,621	0	0	0	0	0	0	0	0
Gambia	20	0	0	0	0	0	0	0	0	0	0	0
Ghana	25,329	26,708	0	0	0	0	25,254	26,347	0	0	0	0
Guinea	1,137	6,558	1,136	6,533	0	0	0	0	0	0	0	0
Ivory Coast	265,755	284,950	131,177	95,376	0	14,351	133,123	173,827	0	0	0	0
Kenya	64,963	61,282	30,865	38,890	0	0	0	79	15,421	10,195	0	0
Lesotho	68	45	0	0	0	0	0	0	0	0	0	0
Liberia	37,996	50,371	4,129	5,454	0	0	897	0	0	0	0	0
Madagascar	56,886	66,574	18,428	18,461	0	6,301	28	0	0	0	0	0
Malawi	18,298	22,451	38	0	9,137	1,150	0	0	2,235	2,469	6,614	18,534
Mali	101	5	0	0	0	0	0	0	0	0	0	0
Mauritania	0	75	0	0	0	0	0	0	0	48	0	0
Mauritius	8,851	15,701	0	0	7,421	12,796	0	0	27	464	0	0
Mozambique	47,450	27,759	0	0	6,653	11,551	0	0	4,693	4,357	4	0
Niger	678	203	0	0	0	0	678	0	0	0	0	0
Nigeria	16,884	27,955	0	0	0	0	13,608	24,623	0	0	0	0
Rwanda	32,905	28,291	31,222	26,347	0	0	0	0	1,555	1,433	0	0
Senegal	27	65	0	0	0	0	0	0	0	0	0	0
Sierra Leone	15,656	14,937	15,308	14,545	0	0	0	0	0	0	0	0
Somalia	766	4	0	0	0	0	0	0	0	0	0	0
South Africa	64,375	86,043	1,301	2,508	8,816	11,052	53	94	411	429	2,069	4,640
Sudan	4,427	3,837	0	0	0	0	0	0	0	0	0	0
Swaziland	27,243	12,161	0	0	27,243	12,161	0	0	0	0	0	0
Tanzania	24,861	8,594	7,214	2,093	0	0	0	0	972	495	33	255
Togo	9,765	19,775	9,765	19,775	0	0	0	0	0	0	0	0
Uganda	155,428	103,811	155,390	103,597	0	0	0	0	19	16	0	0
Upper Volta	0	0	0	0	0	0	0	0	0	0	0	0
Zaire	13,275	4,407	12,024	2,777	0	0	0	0	0	194	0	0
Zambia	54	456	0	0	0	0	0	0	0	38	0	386
Zimbabwe	37,301	22,519	3,361	3,911	32,122	12,298	0	0	211	377	1,373	5,900
Total ¹	1,125,970	1,021,126	594,220	444,695	91,392	81,660	175,103	226,729	25,544	20,515	15,635	36,069
Metric tons												
Volume												
Angola	3,796	1,608	0	0	0	0	0	0	0	0	0	0
Benin	701	0	0	0	0	0	0	0	0	0	0	0
Botswana	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	15,664	1,059	0	0	0	0	0	0	0	0	0	0
Cameroon	13,985	9,416	0	0	803	1,212	0	0	0	0	830	908
CAR	0	0	0	0	0	0	0	0	0	0	5	24
Comoros	15	0	0	0	0	0	0	0	0	0	0	0
Congo (Brazzaville)	0	0	0	0	0	0	0	0	0	0	0	0
Ethiopia	34,692	31,119	0	0	0	0	0	0	0	0	0	0
Gambia	0	0	0	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	13,349	15,327	0	0	0	0	0	0
Guinea	502	2,695	0	0	0	0	0	0	0	0	0	0
Ivory Coast	59,855	40,413	0	53,377	72,779	109,700	0	0	0	0	0	0
Kenya	11,936	15,796	0	0	0	38	6,948	4,536	0	0	0	0
Lesotho	0	0	0	0	0	0	0	0	0	0	0	0
Liberia	1,983	2,333	0	0	457	0	0	0	0	0	0	0
Madagascar	8,386	7,560	0	14,496	20	0	0	0	0	0	0	0
Malawi	15	0	25,532	4,936	0	0	1,410	1,288	1,791	4,680	0	0
Mali	0	0	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	0	27	0	0	0
Mauritius	0	0	17,680	27,207	0	0	0	18	259	0	0	0
Mozambique	0	0	19,890	25,642	0	0	4,004	3,539	3	0	0	0
Niger	0	0	0	0	400	0	0	0	0	0	0	0
Rwanda	10,809	9,884	0	0	0	0	0	764	678	0	0	0
Senegal	0	0	0	0	0	0	0	0	0	0	0	0
Sierre Leone	7,367	6,299	0	0	0	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0	0	0	0	0
South Africa	583	1,015	33,094	42,995	47	84	244	229	804	1,610	0	0
Sudan	0	0	0	0	0	0	0	0	0	0	0	0
Swaziland	0	0	74,313	36,303	0	0	0	0	0	0	0	0
Tanzania	2,812	799	0	0	0	0	0	539	258	21	157	0
Togo	5,403	7,991	0	0	0	0	0	0	0	0	0	0
Uganda	73,736	43,740	0	0	0	0	0	10	10	0	0	0
Upper Volta	0	0	0	0	0	0	0	0	0	0	0	0
Zaire	5,800	1,330	0	0	0	0	0	0	122	0	0	0
Zambia	15	0	0	0	0	0	0	0	19	0	122	0
Zimbabwe	1,301	1,528	92,129	30,544	0	0	135	213	568	1,635	0	0
Total	259,356	184,585	262,638	235,500	97,234	143,435	14,332	11,178	4,022	9,136	0	0

¹All U.S. imports (agricultural and nonagricultural) from Sub-Saharan Africa totaled \$13.913 billion in 1982 and \$10.519 billion in 1983.

Source: Bureau of the Census

**Table 3.—Indices of agricultural and food production in Sub-Saharan Africa,
total and per capita, 1979-1983**

Country	1979	1980	1981	1982	1983	1979	1980	1981	1982	1983	
1969-71 = 100											
	<i>Total agricultural production</i>						<i>Per capita agricultural production</i>				
Angola	57	63	57	59	58	48	50	44	44	42	
Benin	133	121	120	123	120	104	91	88	88	82	
Burundi	113	113	123	121	124	98	96	102	98	97	
Cameroon	123	129	129	132	126	99	101	98	98	91	
Ethiopia	113	102	103	100	102	95	86	86	82	82	
Ghana	93	94	93	92	83	70	69	66	63	55	
Guinea	122	124	124	131	128	98	97	94	97	92	
Ivory Coast	154	177	171	168	167	107	119	111	106	102	
Kenya	145	153	164	168	170	103	105	108	105	102	
Liberia	129	129	126	130	136	98	95	90	90	91	
Madagascar	114	118	114	114	117	91	92	86	84	84	
Malawi	144	142	149	164	169	109	104	107	114	113	
Mali	129	100	113	108	117	106	81	89	83	88	
Mozambique	87	88	90	90	69	69	68	68	66	49	
Niger	136	143	137	139	141	103	105	98	96	95	
Nigeria	121	127	127	131	120	91	93	89	89	79	
Rwanda	143	144	147	146	148	109	106	104	101	99	
Senegal	101	90	125	124	92	77	67	90	87	63	
Sierra Leone	120	117	115	115	121	98	93	88	86	89	
Rep. So. Africa	129	137	153	136	114	103	107	116	101	82	
Sudan	91	95	116	101	106	69	69	83	69	71	
Tanzania	120	123	129	127	127	89	88	89	86	83	
Togo	104	103	108	108	100	80	77	78	76	68	
Uganda	84	81	86	95	102	66	62	64	69	72	
Upper Volta	118	103	121	121	112	101	86	99	97	87	
Zaire	117	120	127	132	136	90	91	93	94	94	
Zambia	110	118	141	129	139	83	86	100	89	93	
Zimbabwe	116	126	137	128	114	89	92	96	87	75	
Sub-Saharan Africa,	117	120	125	124	117	91	91	92	89	81	
Sub-Sahara less Rep. So. Africa	115	118	121	122	117	89	89	89	87	81	
Total food production											
	<i>Total food production</i>						<i>Per capita food production</i>				
Angola	88	92	85	88	88	73	73	66	66	65	
Benin	136	124	124	125	121	106	94	91	89	84	
Burundi	112	114	120	122	123	98	97	99	98	97	
Cameroon	121	125	126	132	129	97	98	95	98	93	
Ethiopia	113	100	101	98	100	95	85	85	81	80	
Ghana	93	94	93	92	84	71	69	66	63	56	
Guinea	124	125	125	133	129	99	97	95	98	93	
Ivory Coast	172	186	194	188	192	120	125	126	118	117	
Kenya	134	141	151	158	156	95	96	99	100	94	
Liberia	144	144	138	152	157	109	105	98	105	104	
Madagascar	110	113	107	109	113	88	88	81	80	81	
Malawi	126	129	137	149	154	96	95	98	103	103	
Mali	117	92	108	97	104	96	74	85	74	78	
Mozambique	90	91	93	92	70	72	70	70	68	51	
Niger	136	144	138	140	142	104	106	99	97	95	
Nigeria	122	128	128	132	121	92	93	90	90	80	
Rwanda	141	142	145	144	147	108	105	103	100	98	
Senegal	100	90	123	123	91	77	67	89	86	62	
Sierra Leone	119	117	114	115	119	96	93	88	86	87	
Rep. So. Africa	131	142	160	141	116	105	111	122	105	84	
Sudan	109	116	135	107	110	82	85	96	74	74	
Tanzania	132	132	140	142	143	98	95	97	96	93	
Togo	104	102	106	108	99	80	76	77	76	68	
Uganda	102	97	104	109	114	80	74	77	79	81	
Upper Volta	114	101	121	121	111	97	85	99	97	87	
Zaire	119	122	130	135	138	92	92	95	96	95	
Zambia	110	117	144	132	142	83	86	103	91	94	
Zimbabwe	98	106	133	117	98	75	77	94	80	64	
Sub-Saharan Africa	119	123	129	126	118	93	93	95	90	82	
Sub-Sahara less Rep. So. Africa	117	120	124	124	118	91	91	88	88	82	

**Table 4.—Production of selected agricultural commodities in Sub-Saharan Africa,
by country, average 1969-71 and annual 1981-83**

Country and year ¹	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops ²	Citrus fruit	Bananas and plantains	Sugar, raw	Peanuts in shell	Cotton- seed	To- baco	Cof- fee	Cocoa beans	Cotton
1,000 metric tons															
Angola															
1969-71	16	467	66	38	1,597	182	81	225	74	26	48	4	200	—	28
1981	5	258	50	16	1,900	212	48	200	35	22	10	2	24	—	5
1982	6	250	50	20	1,950	220	50	210	35	24	12	2	21	—	6
1983	6	260	50	23	2,000	220	45	210	35	20	9	2	17	—	4
Benin															
1969-71	—	201	57	4	533	573	—	—	—	50	24	—	1	—	12
1981	—	288	64	9	575	718	—	—	—	52	9	—	1	—	5
1982	—	275	68	9	616	727	—	—	—	35	16	—	2	—	8
1983	—	275	64	8	600	702	—	—	—	35	16	—	2	—	8
Burundi															
1969-71	7	128	92	8	843	895	—	1,400	—	17	6	—	20	—	3
1981	5	160	180	12	1,000	1,022	—	1,600	—	40	5	—	44	—	3
1982	5	165	170	12	1,000	1,037	—	1,650	—	42	3	—	22	—	2
1983	6	165	172	8	1,025	1,040	—	1,650	—	40	5	—	30	—	3
Cameroon															
1969-71	—	327	343	16	890	995	—	1,083	7	180	39	4	72	115	17
1981	—	432	351	61	638	1,222	—	1,077	84	184	74	2	109	120	26
1982	—	450	422	65	640	1,225	—	1,070	88	180	63	2	126	106	22
1983	—	400	361	71	600	1,150	—	1,052	90	160	67	2	68	98	23
Ethiopia															
1969-71	841	940	1,326	—	—	214	—	50	110	24	27	—	172	—	13
1981	705	1,198	1,408	—	—	284	—	72	165	27	39	—	202	—	19
1982	600	975	1,350	—	—	282	—	73	165	26	38	—	202	—	18
1983	650	1,000	1,400	—	—	284	—	73	166	27	39	—	205	—	19
Ghana															
1969-71	—	377	216	71	1,600	2,368	107	2,399	—	59	—	—	5	423	—
1981	—	378	250	97	2,063	2,140	179	1,980	—	103	2	—	2	225	1
1982	—	346	161	36	2,470	2,193	170	1,980	—	95	2	—	2	178	1
1983	—	299	140	40	2,300	1,830	170	1,960	—	95	2	—	2	155	1
Guinea															
1969-71	—	165	72	364	482	92	—	84	—	41	—	—	7	—	—
1981	—	200	65	330	485	75	—	103	—	83	—	—	4	—	—
1982	—	200	75	400	500	77	—	99	—	85	—	—	4	—	—
1983	—	180	70	375	500	77	—	100	—	80	—	—	4	—	—
Ivory Coast															
1969-71	—	257	45	335	546	1,746	—	832	—	42	24	3	261	193	14
1981	—	373	78	430	911	2,887	—	1,482	178	64	79	2	243	456	56
1982	—	416	76	462	921	2,930	—	1,506	208	67	93	1	247	355	64
1983	—	441	70	451	934	2,960	—	1,535	200	70	82	1	220	395	55
Kenya															
1969-71	223	1,400	342	28	—	203	—	—	128	10	11	—	58	—	5
1981	210	2,200	350	41	—	196	—	—	387	8	25	—	102	—	12
1982	225	2,400	286	42	—	346	—	—	323	8	20	—	89	—	10
1983	205	2,100	300	35	—	352	—	—	330	8	18	—	88	—	9
Liberia															
1969-71	—	11	—	140	235	26	—	84	—	2	—	—	4	2	—
1981	—	9	—	226	200	40	—	105	—	3	—	—	5	6	—
1982	—	10	—	246	190	41	—	108	—	3	—	—	4	5	—
1983	—	10	—	254	190	41	—	108	—	3	—	—	5	5	—
Madagascar															
1969-71	—	120	—	1,867	1,228	453	—	258	99	42	11	5	58	—	6
1981	—	128	—	1,998	1,475	540	—	280	105	30	27	5	83	—	13
1982	—	111	—	2,020	1,500	560	—	281	97	32	28	5	77	—	14
1983	—	123	—	2,166	1,540	557	—	275	101	34	29	5	76	—	14
Malawi															
1969-71	—	1,051	—	12	144	—	—	—	31	165	14	21	—	—	7
1981	—	1,245	—	40	90	—	—	—	167	180	23	51	—	—	12
1982	—	1,415	—	41	90	—	—	—	180	180	22	59	—	—	11
1983	—	1,500	—	44	92	—	—	—	180	177	18	73	—	—	9
Mali															
1969-71	—	69	678	173	155	68	—	—	—	147	37	—	—	—	19
1981	—	65	866	176	145	77	—	—	—	92	66	—	—	—	32
1982	—	60	840	134	145	70	—	—	—	44	86	—	—	—	43
1983	—	65	850	150	147	72	—	—	—	75	100	—	—	—	50
Mozambique															
1969-71	9	435	232	113	2,549	80	—	93	280	140	84	—	—	—	42
1981	3	350	210	62	2,850	110	—	68	178	80	35	—	—	—	18
1982	3	325	200	62	2,900	112	—	70	126	80	36	—	—	—	17
1983	2	200	150	31	2,300	90	—	60	105	65	14	—	—	—	7
Niger															
1969-71	—	2	1,237	34	143	—	—	—	—	257	7	—	—	—	3
1981	—	7	1,636	38	220	—	—	—	—	120	4	—	—	—	2
1982	—	8	1,652	52	220	—	—	—	—	88	4	—	—	—	2
1983	—	8	1,670	50	230	—	—	—	—	100	4	—	—	—	2
Nigeria															
1969-71	—	1,259	6,424	425	9,473	15,192	—	1,280	37	995	114	13	4	271	55
1981	—	1,750	6,880	1,240	11,800	19,927	—	1,425	47	610	40	12	4	182	21
1982	—	1,785	7,125	1,376	11,700	20,605	—	1,440	53	590	38	10	4	154	20
1983	—	1,600	4,960	1,280	11,500	19,750	—	1,400	55	400	25	9	3	150	14
Rwanda															
1969-71	—	54	143	—	333	513	—	1,656	—	7	—	—	14	—	—
1981	—	85	179	—	479	1,052	—	2,100	—	17	—	—	30	—	—
1982	—	89	179	—	495	1,060	—	2,158	—	17	—	—	23	—	—
1983	—	85	184	—	500	1,060	—	2,100	—	16	—	—	30	—	—

Table 4.—Production of selected agricultural commodities in Sub-Saharan Africa, by country, average 1969-71 and annual 1981-83—continued

Country and year ¹	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops ²	Citrus fruit	Bananas and plantains	Sugar, raw	Peanuts in shell	Cotton-seed	To-bacco	Cof-fee	Cocoa beans	Cotton
1,000 metric tons															
Senegal															
1969-71	—	42	544	118	165	20	—	—	—	755	10	—	—	—	5
1981	—	71	736	103	80	8	—	—	60	878	27	—	—	—	14
1982	—	82	585	105	85	10	—	—	65	955	31	—	—	—	17
1983	—	62	400	75	80	8	—	—	45	550	24	—	—	—	13
Sierra Leone															
1969-71	—	11	16	444	493	63	104	174	—	20	—	—	6	5	—
1981	—	12	21	483	635	82	135	210	—	15	—	—	11	8	—
1982	—	13	22	483	640	84	135	210	—	15	—	—	6	9	—
1983	—	14	23	533	640	84	140	210	—	15	—	—	15	9	—
Rep. So Africa															
1969-71	1,461	6,691	376	—	—	635	520	59	1,629	346	36	35	—	—	18
1981	2,340	14,645	545	—	—	930	598	112	1,709	309	103	29	—	—	58
1982	2,365	8,355	270	—	—	1,025	537	114	2,256	116	75	35	—	—	38
1983	1,616	3,915	189	—	—	1,034	493	116	1,473	86	52	39	—	—	26
Sudan															
1969-71	133	33	1,929	—	133	—	7	—	—	342	442	—	—	—	235
1981	218	29	3,786	—	124	—	38	—	—	838	300	—	—	—	158
1982	142	27	2,303	—	120	—	37	—	—	497	376	—	—	—	198
1983	141	28	2,370	—	121	—	38	—	—	522	428	—	—	—	225
Tanzania															
1969-71	61	626	256	173	2,075	345	22	539	91	29	135	12	51	—	66
1981	77	1,430	380	200	4,800	470	27	790	122	56	96	17	67	—	48
1982	90	1,432	370	200	4,900	477	29	800	115	58	90	16	55	—	45
1983	80	1,360	370	210	4,900	490	31	815	105	60	90	15	54	—	45
Togo															
1969-71	—	102	130	19	430	453	—	—	—	18	5	—	12	27	3
1981	—	161	143	17	426	515	—	—	—	35	14	—	14	11	7
1982	—	145	134	19	411	567	—	—	—	35	14	—	9	10	7
1983	—	130	125	15	400	508	—	—	—	33	12	—	11	11	6
Uganda															
1969-71	—	336	958	—	1,250	988	—	300	147	215	164	3	184	—	82
1981	—	342	800	—	1,420	680	—	370	12	80	12	1	128	—	6
1982	—	293	928	—	1,425	690	—	372	15	90	32	1	173	—	16
1983	—	350	1,070	—	1,450	700	—	375	15	120	44	1	192	—	22
Upper Volta															
1969-71	—	63	842	37	30	62	—	—	—	68	25	—	—	—	13
1981	—	132	1,150	29	39	72	—	—	—	77	47	—	—	—	16
1982	—	141	1,120	39	41	74	—	—	—	78	46	—	—	—	16
1983	—	106	1,000	35	39	71	—	—	—	75	46	—	—	—	16
Zaire															
1969-71	3	378	36	156	9,293	397	—	1,483	41	187	34	—	73	5	19
1981	5	639	50	246	13,778	342	—	1,800	47	347	14	—	80	5	7
1982	5	681	50	251	14,180	344	—	1,820	52	357	16	—	84	5	8
1983	5	705	50	258	14,600	345	—	1,820	64	367	22	—	80	4	11
Zambia															
1969-71	—	786	128	—	144	4	—	—	37	24	6	6	—	—	3
1981	12	1,200	100	6	178	3	—	—	102	23	13	3	—	—	6
1982	14	975	100	7	180	3	—	—	117	12	11	3	—	—	5
1983	10	1,010	100	8	180	3	—	—	132	19	14	3	—	—	7
Zimbabwe															
1969-71	49	1,475	358	—	46	22	—	—	224	134	84	59	1	—	44
1981	201	2,767	286	—	50	23	—	—	391	130	128	70	5	—	70
1982	213	1,786	257	—	50	22	—	—	405	115	96	93	7	—	56
1983	120	1,023	155	—	45	20	—	—	440	34	108	99	8	—	59
Total Sub Sahara															
1969-71	2,804	17,803	16,847	4,575	34,811	26,590	840	12,002	2,935	4,341	1,386	165	1,205	1,041	713
1981	3,781	30,554	20,564	5,860	46,361	33,627	1,025	13,774	3,789	4,503	1,192	194	1,158	1,013	615
1982	3,668	22,210	18,793	6,081	47,369	34,781	958	13,961	4,300	3,924	1,248	227	1,157	822	644
1983	2,841	17,364	16,293	6,120	46,913	33,448	917	13,859	3,536	3,286	1,268	249	1,110	827	648

¹Data for 1983 are preliminary. ²Other root crops may include yams, cocoyams, sweetpotatoes, and white potatoes.

— None, negligible, or not identified in ERS data base.

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